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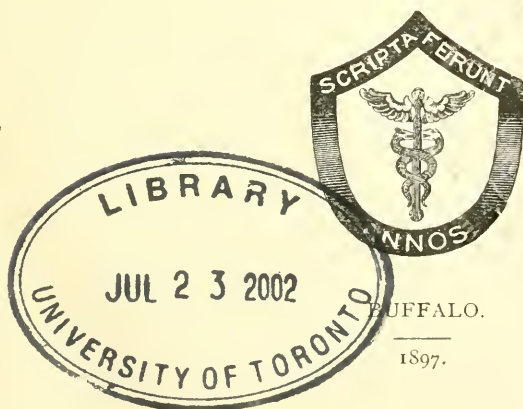
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Original Communications.

CASTS OF THE URINIFEROUS TUBULES.

BY THOMAS B. CARPENTER, M. D., Buffalo, N. Y.

TUBE CASTS, renal casts or cylinders are casts of the uriniferous tubules, caused by the presence of a coagulable substance in the tubule. This substance when coagulating entangles in its body anything that may have been surrounded by it while yet a liquid. From this fact, or from differences in composition of the coagulable substance, the various casts take their names. If loose epithelial cells happen to be in the tubule before solidification of this material we have an epithelial cast; if blood, a blood cast, and so on for the other varieties.

Very great variations in size are met with, the diameter and length varying with the size and condition of the tubule in which formed. Casts from the convoluted tubules are much narrower than those from the straight or collecting tubules. If the tubules are denuded of their epithelial lining we get an increase in diameter corresponding to the thickness of the epithelial layer. In many cases great increase in diameter is due to dilatation of the tubule, due to plugging near its orifice and consequent packing of the cast-forming material above the plug. As a rule, the variation in diameter is from 1-2500 to 1-500 of an inch. The length may vary greatly, but we never see complete casts of the whole tubule, for they must necessarily become broken in their passage downward. Casts of the straight tubules are usually the longer.

Regarding the source and composition of the cast-forming material there is considerable difference of opinion. Some investigators consider the material to be a coagulable constituent of the blood introduced into the tubule by capillary rupture or otherwise. This is undoubtedly true in some cases. Others claim that the colorless casts do not consist of fibrin and differs materially from

other varieties of albumin. Then again, some consider these colorless casts to be a product of a disturbance of nutrition of the glandular epithelium lining the tubules, or, in other words, a degenerative product. Others again think that the epithelial cells have the power to elaborate and pour into the tubule a coagulable substance not a product of degeneration. Since we can have casts formed in tubules entirely bereft of epithelial lining, it follows that the last two theories cannot be true in all cases. It is probable that all theories mentioned are correct in respective cases. Staining experiments are under way that may be helpful in clearing up some disputed points regarding the composition of certain casts.

In the following pages I shall endeavor to classify the various varieties of casts according to their characteristics, that they may be more available as aids to accurate diagnosis.

For all practical purposes we may divide casts into the following varieties: hyaline, fine granular, coarse granular, brown granular, epithelial, blood, fibrinous, fatty, waxy, crystalline, bacterial and purulent. They differ from each other either in composition of the coagulable material forming them or in the character of the substances which become entangled in their bodies when coagulating. In many instances sharp lines of demarcation cannot be made between certain varieties, but it is essential that this be done to the fullest extent, for in this way alone is it possible to derive information of the probable extent of inflammatory or degenerative processes in the kidneys.

Hyaline casts, so called from their structureless and hyaline appearance, come from tubules where the epithelial lining is intact, firmly attached to the basement membrane or from tubules entirely denuded of epithelium. They are structureless and colorless, very difficult to see in many cases, and their recognition is of the highest importance. As a rule, the cast is not entirely hyaline, but has a few granules adherent in different places or perhaps a few minute oil drops. The pure hyaline casts are difficult to see, being of about the same refractive index as the urine in which floating, and, since they are of about the same specific gravity, settle with difficulty. The threads of mucus, so-called mucous casts found in highly acid urines, may easily be mistaken for hyaline casts. They do not come from the kidneys and differ from hyaline casts by their usual great length, fibrillated appearance, difference in diameter at different places and terminating at one or both ends

in a point. Hyaline casts are found in all affections of the kidneys, whether temporary or permanent.

It must be borne in mind that some observers claim the presence of hyaline casts in normal urines. An experience of ten years with many thousands of normal and pathological urines has failed to furnish such evidence to the writer.

Granular casts are nothing more than the hyaline variety rendered opaque by a mixture with or covering of granular matter derived from degenerated epithelium or blood. If from blood, we have the heavy brown granular cast. Whether a cast is finely or coarsely granular is of some importance. As a rule, the more acute the affection the more granular debris and the coarser the casts. The fine granular casts are found under about the same conditions as the hyaline variety. The coarse and brown granular casts are, as a rule, found only in acute processes, as severe active hyperemia and acute parenchymatous nephritis.

Epithelial casts are, as the name suggests, casts that are covered wholly or in part with renal epithelial cells. True epithelial cylinders are also found, composed of a shell of cells due to the whole epithelial lining coming away in one piece. They are rarely seen. The epithelial casts proper were primarily, at least in many cases, true hyaline casts, but, due to disease of the tubular lining cells, they became loosened or detached and affixed to the cast. Often-times we find the epithelium on one side only. They are recognised without difficulty and when present in any amount usually denote either an active hyperemia or acute parenchymatous nephritis.

Blood casts may be either hyaline casts originally, which entangled blood in their substance while coagulating, or they may be pure clotted blood introduced into the tubule by capillary rupture. It is usual to consider a cast as a blood cast even though it has comparatively few blood corpuscles on its surface. In size they are the same as other casts subjected to the same conditions. They are easily recognised, particularly if formed of clotted blood, and as a rule the corpuscles on the surface are very distinct. They are found only in acute processes, the typical specimens occurring in acute parenchymatous nephritis.

Fibrinous casts are those highly refractive casts varying in color from light yellow to deep yellow or even brown. Usually they are of a large diameter and have a peculiar convoluted appearance, as if the tubule in which formed was dilated or sacculated, or as if the

substance was introduced under pressure. They are supposed to be formed by the exudation and coagulation of blood plasma. This variety is found in acute parenchymatous and septic nephritis.

Waxy casts, so called from their wax-like appearance, are colorless like the hyaline, but very refractive. Often they have the convoluted appearance of the fibrinous but without the color. The composition of these casts is not known. Many give the amyloid reaction with iodine solution, but this is not the rule except with those found in amyloid degeneration. They are found in all chronic diseases of the kidneys nearing a fatal termination, but, as would be supposed, their appearance in amyloid disease is comparatively early. In chronic interstitial and parenchymatous nephritis they appear late and always warrant the prognosis of a speedy fatal termination. Many writers make no distinction between the waxy and hyaline casts, and fibrinous also are indiscriminately called waxy, hyaline or refractive. The question of differentiation between these three varieties of casts is of considerable importance, both from a diagnostic and prognostic point of view. The fibrinous casts are highly refractive, always colored and are found only in acute processes. The waxy casts are similar in appearance to the fibrinous, but without color. They are found only in chronic affections. The hyaline casts are colorless but not refractive like the waxy.

Fatty casts are those containing oil drops on their surface, either free or as fatty degenerated cells. The basis substance is the same as the hyaline casts; but during or after setting of the plastic substance the oil or fatty degenerated cells become entangled or adherent to its surface. They are found in chronic parenchymatous nephritis, in acute parenchymatous nephritis during convalescence and in severe long-continued active hyperemia.

Crystalline casts—that is, casts containing uric acid, urates, calcic oxalate or cystine—are occasionally met with. These crystals may accidentally become adherent to the cast after it has left the tubule, but casts are met with containing them imbedded in their substance and are interesting as showing that these crystals may separate in the kidney tubules. In infants suffering from uric acid infarction of the kidneys we find casts in the urine composed almost entirely of uric acid and urates.

Bacterial casts are those composed of or containing bacteria. Usually they are of large size and resemble a granular fibrinous cast.

As the bacteria are at rest they have simply a granular appearance, but proper staining and examination with a high power will reveal their true nature. They are associated with purulent casts and found only in septic nephritis.

Purulent casts are found under the same conditions as the preceding. In general appearance they may closely resemble epithelial casts, but as a rule they are of larger diameter ; coming from the straight tubules and their associates, free pus in quantity and bacterial casts render their nature evident. By the addition of acetic acid the granular matter of the corpuseles may be dissolved, thus showing up the two or three nuclei characteristic of pus.

An absolute diagnosis of a pathological condition in the kidneys cannot be made from casts alone. We must take into consideration the sediment as a whole, and even then in many cases we must have a chemical analysis of the urine and know the average amount passed in twenty-four hours. This last factor is of the greatest importance.

Active hyperemia is characterised by hyaline and fine granular casts, with an occasional blood and epithelial cast from the larger tubules. If very protracted and severe we may find a few fibrinous and brown granular casts and possibly a few fatty epithelial casts. In connection with these casts we find free blood and renal cells. The renal epithelial cells are usually of the larger variety, tending toward the battledore shape and come from the straight tubules. In mild cases this sediment may resemble that of amyloid degeneration or interstitial nephritis. It is differentiated from these two affections by the fact that the total amount of urine is always less than normal, while in amyloid and interstitial disease the amount is largely increased.

In passive hyperemia we rarely find more than a few hyaline and fine granular casts associated with a few renal cells and amorphous urates. This affection is even more likely to be confounded with amyloid or interstitial than the preceding. It differs from both by an increase in the total solids and having a small amount, high color and high specific gravity, although at times we may have a low specific gravity and pale color, but never so low as in amyloid or interstitial disease.

In acute parenchymatous nephritis, in the early stages, we find blood, epithelial, brown granular and fibrinous casts, rarely hyaline and fine granular casts. These various casts are associated with much blood, leucocytes and renal cells of all kinds, all colored

brown by blood pigment. As the case progresses we begin to find fatty elements—fatty casts, fatty renal cells and compound granule cells. The appearance of these fatty elements in a case of acute nephritis indicates the beginning of convalescence and the patient will probably recover. As the fat increases the blood diminishes, as do also the blood, fibrinous and brown granular casts. Finally the fat disappears also, and we find only renal cells, hyaline and fine granular casts, with few blood globules and an occasional blood cast. The fatty stage of acute nephritis is very liable to be confounded with the chronic parenchymatous nephritis, therefore a guarded diagnosis should be given. The principal point of difference is the presence of more or less blood in the acute form.

In the active stage of chronic parenchymatous nephritis we find hyaline, granular, fatty and fatty epithelial casts, associated with free fat, fatty renal cells, compound granule cells and amorphous urates. During the inactive stage, when the patient feels better and has returned to work, the sediment decreases in amount, though still containing the same elements with the exception of the amorphous urates, which have entirely disappeared. If life is prolonged a sufficient length of time, which is rarely the case, the large fatty kidney becomes atrophied and we have the so-called atrophic stage. The sediment, and in fact all the characteristics of the urine in this stage are very similar to the interstitial nephritis. The only point of difference is the presence of fatty elements in the parenchymatous variety. If at any time during the course of the disease we find waxy casts we may soon expect a fatal termination.

In amyloid degeneration we find hyaline, fine granular and at a late period waxy casts. The waxy casts appear much earlier in this affection and do not have the same importance as when appearing in interstitial or parenchymatous nephritis.

In chronic interstitial nephritis we find a few hyaline and fine granular casts associated with a few renal cells. This form of Bright's disease is the most common, most important and the most difficult to detect. As a rule the disease continues for years with slight symptoms, and in many cases no symptoms at all, until uremic intoxication appears. After this, if the patient lives, we find waxy casts in addition to the first stage elements. The characteristics in this affection and in amyloid degeneration are about the same. As a rule the amount is larger and the specific gravity higher in amyloid disease. The solids are much diminished in the interstitial, while in the amyloid they are normal or only slightly diminished

The amount of albumen throughout the whole course of interstitial is very small and may be absent for a few days at a time. It never exceeds 0.25 per cent. In amyloid disease the amount of albumen is small at first, but gradually increases to 0.50 per cent. near the end.

It must be understood that this scheme of differential diagnosis from the sediment characteristics of the urine, is based on typical cases and is liable to considerable variation from complications of one pathological process with another. We may have many first stages in the course of an acute nephritis due to exposure or other causes, particularly in hospital cases. This, of course, would modify to some extent the sequence of changes in the characteristics of the sediment as mentioned. The fatty changes may take place and the sediment begin to clear up, when suddenly the whole preceding process may be repeated. In chronic parenchymatous nephritis we may have many acute exacerbations from time to time, and at such time the sediment presents the characteristics of both the acute and chronic nephritis. This condition of affairs resembles exactly the fatty stage in acute nephritis and the differentiation must be based on the chemical analysis and previous history. Complications of chronic parenchymatous and amyloid disease are not rare and this double process is difficult to diagnose. The sediment possesses the same characteristics as in pure chronic parenchymatous, but usually the amount of urine is larger and the color is paler. Previous history of extensive suppuration or syphilis and evidence of amyloid disease in other organs will confirm the diagnosis.

The commonest complication is interstitial, with parenchymatous nephritis, usually spoken of as diffuse nephritis. There is usually no great difficulty in diagnosing the complicated condition, and as a rule the degree of one or the other can be determined with a fair degree of accuracy. As the parenchymatous changes increase, so does the amount of albumin and fatty elements, and the total amount of urine and the specific gravity decrease. As the interstitial variety predominates the converse applies.

The above examples of complicated conditions will illustrate how the character of the urine and sediment may be modified. If the results of examination are inadequate for a diagnosis the fault will probably be due to lack of care in examination, regarding which a few words will not be out of place.

Centrifugation of a sample is, of course, a valuable and per-

haps the best means of obtaining a sediment for examination. But few physicians possess an apparatus of this character ; therefore the following instructions will enable one to obtain the best results without a centrifuge.

The glasses used for the collection of specimens must be scrupulously clean, particularly if they were used for the same purpose before. One drop of a stale sample will speedily render a new one unfit for examination. If the conditions are such that we may expect rapid decomposition, as in warm weather or in samples containing much pus, it may be prevented by using perfectly clean tightly-stoppered bottles, into which has been introduced a little salicylic acid, chloral hydrate or a few drops of chloroform. By this means a sample can be kept several days in good condition. If possible we should always use a part of the whole amount passed in twenty-four hours. If this cannot be obtained use that passed in the afternoon. It should be allowed to settle in a tall glass with a rounded concave bottom and parallel sides. The conical glasses so often used allow too much sediment to settle on the sides, where in this shape of glass we can usually find more casts than at the bottom. As a rule from four to eight hours is sufficiently long for settling, except in those cases where we have a pale urine, of low specific gravity, large amount and no appreciable sediment. In such cases—that is, of suspected interstitial nephritis—the sediment may contain only a few pure hyaline casts, associated with a few renal cells, and as a rule is small in amount, hard to find and settles with difficulty. In these cases allow it to settle for twenty-four hours. The use of staining fluids is rather superfluous, except perhaps in such cases as the last mentioned. A few drops of a concentrated solution of fuchsine or methylene blue may be added to the whole amount set aside to settle.

In those samples containing a heavy sediment of amorphous urates it is well to add about an equal bulk of warm water before setting aside to settle. This will accomplish their complete solution and leave the field clearer for careful observation. For the same reason large deposits of phosphates had better be dissolved. This can be accomplished by rendering the sample distinctly acid with acetic acid.

A great deal of the success in examining urinary sediments depends on the manner of using the pipette. The tip of the pipette should be drawn out long and at the orifice should not be over two millimeters in diameter—better, about one and one-half milli-

meters. It should be introduced into the fluid with the index finger pressed firmly over the top and lowered until the sediment is reached; then rotate the pipette, still keeping the finger pressed over the top, thus allowing the sediment to run in very slowly. By doing this we get as much sediment as possible in proportion to fluid, which is an important point when few casts are present. Before transferring to the slide, wipe off the fluid adhering to the outside of the pipette, otherwise that fluid containing no sediment will be deposited on the glass. It is better to use only a small drop on the slide and have only one layer of sediment to examine. It is easier, facilitates the rapid hunting over a slide and we are not so apt to miss delicate casts as if we were focussing rapidly through a long distance. Satisfactory work cannot be done with an amplification less than 350 diameters. Systematic examination of a slide is a material aid in hunting for casts. Beginning on one side go up and down on successive parallel lines until the whole slide has been traversed. Manipulation of the cover-glass with the fingers is apt to lead to error by rolling up mucus and granular matter, forming bodies not unlike casts in appearance.

If necessary there are many fluids in which an organised sediment may be preserved. The best is a solution of potassic acetate of specific gravity 1.050, to which has been added 95 per cent. carbolic acid in the proportion of 5 to 1,000. After settling and pouring off the supernatant urine add the preservative, let it settle and decant again. This process may be repeated two or three times to entirely replace the urine with preservative solution. The sediment may then be preserved in small bottles for future reference or mounted in shallow cells, the cover-glass being cemented down with one of the many cements used for this purpose. Bell's cement is as good, if not better, than any others. Asphaltum varnish should not be used, for in the course of a few years it cracks, allows the fluid to evaporate and thus spoil the mount.

325 JERSEY STREET.

A LIVERPOOL physician makes a portable spirit lamp out of a thermometer case, by simply fitting it with a few strands of lamp cotton and then filling with spirits. Screw on the top and place a piece of rubber tubing over the joint, making it spirit tight. Good for sterilising needles. A suitable companion to Pavy's urinary test case and for other purposes.—*Atlanta Med. and Surg. Jour.*

ON LAKE ERIE AS A WATER SUPPLY FOR THE TOWNS ON ITS BORDERS.¹

By GEORGE W. RAFTER, M. A. Soc., C. E., Rochester, N. Y.

INVESTIGATE the matter in whatever direction we may and we reach always the same result, that in the art of making life safe as well as enjoyable the European cities are far in advance of our own. The time was when in the water supplies, at any rate, the foreign cities were not much better than ours; the water supplies on the other side were like our own, mostly bad, but in the last ten or fifteen years a great change has taken place, until now one may travel to about every large European city drinking the water as furnished at every stop without any anxiety as to the effect on health.² With us, on the contrary, a really safe water supply is the exception—leaving out of the account a few cities—and we may say there are as yet almost no sanitarily unobjectionable water supplies in the United States.

As to just how discreditable this is to our cities I do not now attempt to determine. I merely point out the indisputable fact, leaving to others the task of determining the final causes. Before proceeding to the main subject of this paper—namely, Lake Erie as a water supply for the towns on its borders, I wish to give a brief account of two European water supplies, which among others I had an opportunity to study somewhat while abroad last year.

The first of these is that of the city of Liverpool. In 1847 Liverpool was referred to in a government sanitary report “as the most unhealthy town in the United Kingdom.” The death-rate then was 63.5 per 1,000. At present it is 26.1 per 1,000. Previous to 1847 the water supply was in the hands of two private companies whose franchises dated from 1799 and 1822. Both of these companies distributed water to their consumers on the intermittent system twice or three times a week and for not more than two or three hours at a time. In this system each house is fitted with a tank in the attic, of a capacity graduated to the number of people living in the house. The pressure is only on the street mains at certain definite seasons, at which time each householder must see that his supply-pipe valve is opened, as otherwise the house must remain without water until the next stated period for filling the tanks comes around.

1. Read before the Microscopical Club of the Buffalo Society of Natural Sciences, January 13, 1896.

2. Allen Hazen's Filtration of Water Supplies. The author's observations are to the same effect on this point.

In 1847, however, these private companies conveyed their franchise to the corporation of Liverpool, and in the same year the corporation was authorised by act of parliament to carry out what is known as the Rivington Pike Water Supply designed by the great English engineer, Thomas Hawksley. This was a project for impounding the headwaters of the rivers Douglas, Yarrow and Roddlesworth by the construction of large reservoirs in a hilly and sparsely settled district about twenty-five to thirty miles away. These works were finished in 1857.

The Rivington Pike Works include six impounding reservoirs with a total capacity of 4,200,000,000 imperial gallons and a catchment area of 10,000 acres. The one fact to which I wish to call special attention is this, that although the Rivington Pike Supply is gathered from a sparsely settled, hilly country, ranging in elevation above the sea level from 425 to 1,500 feet, still this water, from an area naturally superior even to the Hemlock lake area of the Rochester water supply, is all filtered. The original design included the preparation of 6.25 acres of filter areas as a necessary part of the project. Ever since 1852, when these works were first started, or for forty-three years, it has been recognised at Liverpool that any water, subject even remotely to sewage contamination, is unsafe without efficient sand filtration. In 1873 it was felt that the Liverpool water supply should be extended, and after much discussion it was decided to construct an artificial lake in the valley of the River Vyrnwy, in Wales, and to bring the water from thence by iron mains to Liverpool, a distance of sixty-eight miles. This great work was finally completed and opened for use in 1892.

Lake Vyrnwy is situated in a remote and unfrequented part of Wales, with neither a railway station nor town of any size within ten miles. The nearest railway station is Llanfyllin, which may be reached via Oswestry, from either Birmingham or Shrewsbury to the east, or from Liverpool and Chester from the north. A drive from this place to Lake Vyrnwy is an experience worth going abroad to take, especially if, as in my case, a typical Welsh rainy day happens to be encountered. The Vyrnwy dam has a height of 161 feet from foundation to parapet of the carriage road crossing it. The height from river bed to sill of overflow weir is eighty-four feet. The lake created by this immense structure is 4.75 miles in length and an average of one-half mile in width. The area of the water surface when full is 1,121 acres, and the storage 2,103,000,000 cubic feet, equivalent to 13,125,000,000 imperial gallons.

The catchment area is 18,000 acres, but the Liverpool corporation have power to divert two neighboring streams with catchment areas of 5,200 acres, so that when all the works contemplated by the act of parliament have been carried out, the lake will have a total watershed of 23,200 acres. The total cost of the Vyrnwy works to 1882 was roundly £2,100,000. Please bear in mind that this expenditure was for an extension of the works merely. It does not include any part of the cost of the Rivington Pike or original water companies' supply. As stated, the catchment area of Lake Vyrnwy proper comprises about 18,000 acres, of which the Liverpool corporation owns about 12,500 acres. It is intended to ultimately purchase the balance of the area which is now included in two estates.

The catchment area, generally, is very sparsely populated, and on that portion owned by the corporation, the sanitary arrangements of residences, barns and barnyards have been remodeled wherever necessary to protect the issuing water. Nevertheless—and here again is the point of the whole matter—the Vyrnwy supply is all filtered, the same as the Rivington Pike supply before it goes to the consumer.

At Oswestry, about twenty miles from the lake, at a point on the conduit line, where a convenient level area exists, the water is taken out and subjected to efficient sand filtration.

At the present time the possible daily supply is 32,000,000 imperial gallons, but the Vyrnwy works are so arranged with reference to future extension as to admit of a daily supply, ultimately, of 58,500,000 gallons.

The actual consumption for a population of 870,000, is 20,000,000 gallons per day, giving a per capita consumption of twenty-three gallons. This we may bear in mind is imperial gallons, equivalent to 27.6 U. S. gallons per day.

In this connection it may be remarked that the population of the city of Liverpool itself is only about 500,000. The corporation is, however, required by statutory provisions to supply certain adjacent districts, thus bringing the total of the population supplied up to about 870,000, as stated.

The following are some analyses of the Liverpool water as it goes to the consumer :

TABLE NO. 1.—CHEMICAL ANALYSES OF THE LIVERPOOL WATER SUPPLY.

(In parts per 100,000.)

	Total solid impurity.	Organic carbon.	Organic nitrogen.	Ammonia.	Nitrogen as nitrites & nitrates.	Total combined nitrogen.	Chlorine.	Total hardness.	
VYRNWY SUPPLY.									
Average winter water after filtration ..	4.68	0.361	0.024	0.0	0.0		0.74	2.9	Clear and yellow.
Summer water after filtration	4.39	0.198	0.023	0.002	0.0	0.025	0.77	2.7	Clear and pale yellow.
Rivington Pike	9.66	0.210	0.029	0.002	0.0	0.031	1.53	4.0	Clear.

Probably, however, the best index as to the purity of a municipal water supply is that derived from the typhoid fever death-rate. For the years 1890 and 1891, the rate for Liverpool was 1.8 deaths per 1,000 of the population. The death-rate from all causes in these years was 27.7 per 1,000 of the population.

In considering the significance of this latter figure we need to understand that Liverpool has the greatest density of population per acre of any city in Great Britain. Thus the density of population in London is 56.5 persons per acre; Birmingham, 57.2; Bristol, 61.8; Manchester, 39.6; Glasgow, 92.8 and Liverpool, 99.3, as determined from the census of 1891.

The second European municipal water supply, to which I wish to briefly call attention, is that of the city of Zurich, Switzerland.

The original water supply of Zurich was taken from springs, but in 1873 the original supply having proven too small, it was resolved to also take a supply from the River Limmat, which is the outlet of Lake Zurich. The river water first passed from the river into a submerged filter area, constructed in the bed of the river; whence the filtered water flowed through a concrete conduit to the pumping station. In the months of March, April and May, 1884, Zurich was visited by a virulent outbreak of typhoid fever, during which time fully 2 per cent. of the population were attacked and 9 per cent. of the cases proved fatal; thus giving the high rate of 180 deaths in 100,000 population.

A commission appointed to inquire into the cause of this epi-

demic, reported that the infection could not be traced to abnormal meteorological or sanitary conditions, but that the filtered river water, although clear and satisfactory in appearance as well as chemically of a high degree of purity, still contained an abnormal number of bacteria. On investigation it was discovered that the submerged filter bed and the concrete main leading therefrom to the pumping station were both so seriously defective as to allow the raw water of the river to pass to the pumps, and thence to the reservoirs and so finally to the consumers. The concrete conduit had been injured by blasting in the river bed near by to remove an obstructing rock. The defective filter and conduit had both passed unnoticed, because the river was normally so clear and chemically pure that not only the officers in charge of the water supply, but the citizens generally, believed that the filtration was really a matter of little importance. It was also ascertained that about the time of the outbreak extensive dredging operations, in connection with the new quay works at the lake and along the river, had been carried on whereby the bottom had been thoroughly stirred up.

These two facts in conjunction with the results of the bacteriological investigations strongly indicated the river water as the vehicle of infection ; the more so, because at Geneva, where similar dredging operations were in progress, there was at the same time a severe epidemic of typhoid fever. The result of this experience was that Zurich immediately recognised the necessity for a new water supply. In the meantime the area to be dredged was entirely enclosed with a coffer-dam and a cast iron conduit with lead joints substituted for the defective concrete main of the old supply. The new supply was taken from the lake itself rather than from any of the springs or streams of the adjacent alpine region. The result of the typhoid epidemic had so far awakened the people of Zurich that in any case it was deemed essential to the purity of any new supply that it should be filtered.

A bacteriological investigation showed that while the mud at the bottom of the Swiss lakes frequently swarmed with bacteria, still the water at mid-depth was usually very pure. Some of the results obtained from cultures are as follows : In the Lake of Zurich, at the foot, 170 per cubic centimeter ; in Lake Luzerne, 50 ; in Geneva, 38 ; and in Constance, 58 per cubic centimeter. The spring water of the vicinity after a rain frequently contains as high as 2,000 bacteria per cubic centimeter.

Lake Zurich is about twenty-five miles in length and nearly two

miles wide. The catchment area is 423 square miles. Its mean depth is 230 feet, and the maximum 475 feet. The mean discharge of the River Limmat is about 3350 cubic feet per second.

The Zurich authorities consider that the self-purifying capacity of the Lake of Zurich is considerable and formulate about the following, as expressing the various causes the self-purification is due to:

(1) First, sedimentation, which is favored by the slow motion of the water.

(2) By its freedom from severe agitation, which prevents matter once at the bottom from being stirred up every few days. The lake is surrounded on all sides by high mountains which prevent severe wind action. At the same time there is wind action enough to assist oxidation at the surface without such severe agitation as stirs up the bottom.

(3) By the great depth which further tends to keep organic matter at the bottom after it once reaches there.

(4) The Swiss lakes all possess an aquatic fauna of great variety, which, collecting at the mouths of drains and streams, feeds upon the impure matter brought down.

(5) By reason of the undisturbed condition at the bottom, innumerable quantities of microbes develop, which feed upon the sediment as it reaches them.

The difficulty is to know where the self-purifying process is complete; hence, as an additional safeguard, the Zurich authorities decided to also filter the water by the most efficient methods of sand filtration. The new works were therefore designed with a filter station as an integral part of the plant.

I will not consume space in describing the mechanical arrangements of the new works with filter areas, because that is more appropriately discussed as a matter of engineering construction. At present we are chiefly concerned with the physical, chemical and biological considerations which should guide us in deciding whether a given body of water is a fit source for a municipal supply. The population of Zurich is, with its suburbs, about 100,000, and the water supply is placed at about eighty U. S. gallons per capita per day. The investigations carried on in the municipal laboratory and at the Hygienic Institute of Zurich have developed a number of important principles, to some of which we may refer a little in detail.

As to the effect of the freezing over of the lake on the quality of the water.

In 1880 the winter was exceptionally severe and when the ice on the lake broke up in the spring, there was a considerable increase of typhoid cases, which, after the epidemic and investigation of 1884, was attributed to a probable contamination of the river water, passing through the old submerged filter and concrete mains. In the winter of 1889-90 the frost was still more severe than in 1880, and it was resolved to make such a study as might throw some light on the quality of the water in winter. The entire lake was frozen over from January 17th to March 20th, during which time a considerable quantity of impure matter had accumulated on the surface of the ice, at and about the foot of the lake, which it was feared might contaminate the water supply when the ice broke up. A series of special analyses were therefore made between January and May with the view of ascertaining whether, and how far, the quality of both the unfiltered and filtered water would be affected during the frost, and during and after the thaw. Table No. 2, compiled by Mr. Preller for his paper on the Zurich water works,¹ gives the result of these analyses.

TABLE NO. 2.—SHOWING THE EFFECT OF FREEZING OVER OF THE LAKE ON THE QUALITY OF THE WATER AT ZURICH.

Chemical Constituents expressed in parts per 100,000.	November 15, 1889, to January 17, 1890. Normal.	January 18, 1890, to March 19th. Lake frozen over.	March 20th to April 5th. Lake open.	April 6th to May 12th. Intermediate period.	May 13th to June 27th. Normal.
BEFORE FILTRATION :					
Organic matter.....	1.69	1.83	1.77	1.80	1.83
Free ammonia	0.0007	0.0009	0.0007	0.0005	0.0005
Albuminoid ammonia	0.0028	0.0032	0.0030	0.0029	0.0033
BACTERIA (per cubic centimeter) :					
Mean number for period	122	667	938	632	171
Maximum number for period ...	202	2179	2152	1425	229
TEMPERATURE (F°) :					
Mean of water	41°.4	37°.4	39°.0	40°.0	48°.2
Mean of air	15°.0	16°.0	40°.0	45°.0	57°.2
AFTER FILTRATION :					
Organic matter.....	1.41	1.44	1.40	1.41	1.49
Free ammonia.....	0.0	0.0	0.0	0.0	0.0
Albuminoid ammonia	0.0018	0.0019	0.0019	0.0020	0.0019
BACTERIA (per cubic centimeter) :					
Mean number for period	10	13	9	11	16
Maximum number for period	20	27	29	22	21

¹ Proc. Inst. C. E., Vol. CXI., p. 281.

We may draw the following conclusions from Table No. 2 :

(1) The freezing over of the lake was followed by a large increase in the number of bacteria which continued until the ice broke up.

(2) The breaking of the ice was followed by a still greater increase, temporarily, due to the passage into the water of the large amount of filth which had collected on the surface.

(3) After the break-up the water gradually returned to substantially the same condition as at the beginning of winter.

(4) The fluctuation in number of bacteria are apparently independent of temperature, although not necessarily so, as the decrease in temperature may have reached the point just as the lake closed where the annual overturning occurs by which the bottom water is brought to the top. As we shall see further on, the number of bacteria is greater at the bottom than elsewhere.

(5) We may say, however, that the great increase in bacteria during the frost period is due probably to the impeding of the natural process of oxidation by the exclusion of air from the water.

On this point we may note that the aërobian forms are antagonistic to the anaërobians, whence the anaërobians may be expected to multiply more rapidly with the lake frozen than when open. We find here a rational reason why typhoid fever would naturally become epidemic with the lake frozen.

(6) We note, too, from Table No. 2, that throughout these bacteriological fluctuations, the water shows but slight and inappreciable chemical changes from its normal condition. We find them a strong reason why the bacteriological investigation is of supreme importance.

(7) We also learned that the filtered water hardly varied in quality during the whole period.

As to the proper depth of the intake in such a lake.

On this point, chemical and bacteriological examinations were made at various depths, as shown by Table No. 3.

TABLE NO. 3.—PRINCIPAL CHEMICAL CONSTITUENTS IN PARTS PER 100,000 AND NUMBER OF BACTERIA IN UNFILTERED LAKE WATER AT VARYING DEPTHS.

	13 Feet.	39 Feet.	46 Feet.	52 Feet.
Organic matter	2.11	2.16	2.16	2.17
Free ammonia.....	0.0006	0.0011	0.0011	0.0011
Albuminoid ammonia.....	0.0046	0.0044	0.0044	0.0048
Bacteria (per cubic centimeter).....	149	160	175	352

The intake is actually set at the depth of forty-two feet, while the total depth at the point of intake is fifty-six feet. Table No. 3 shows that the quality of the water is not impaired by greater depth of intake up to forty-six feet ; but at fifty-two feet the increase in number of bacteria points to the influence of the large number living at and near the bottom.¹

In considering Lake Erie as a source of water supply for the towns on its borders, we shall see that the results of the experience studies abroad may be beneficially applied here.

The length of Lake Erie is about 240 miles and its mean breadth a little less than forty miles. The area of the water surfaces is given at 9,522 square miles, while the catchment area is 21,370 square miles.

The average depth in the western portion is about thirty feet ; off Cleveland the average depth is about sixty to seventy feet with a maximum of about ninety feet. The deepest portion is well out in the middle between Erie and Dunkirk, where a maximum depth of 240 feet is attained, but the area of this depth is very small. The average depth of the whole lake may be taken at sixty feet. We have here a shallow lake with, generally speaking, low flat shores on every side and hence subject to the full sweep of nearly every prevailing wind of the region. By way of emphasising this last statement it may be observed that it is quite common experience in severe, long-continued storms, when the wind sets from the west end of the lake toward the east, that the waters pile up several feet, doing considerable damage to the lower part of the city of Buffalo. In winter, on account of its shallowness, Lake Erie is more or less closed with ice, sometimes months at a time.

Referring to the hydrographic charts of Lake Erie and we find that for nearly the whole area the bottom is described as clay, although there are occasional small areas of sand and gravel.

I will not take time to give statistics of population in the Lake Erie catchment area and the consequent amount of sewage which daily finds its way into its waters. It is enough to say that the populous cities of Detroit, Toledo and Cleveland, as well as a number of smaller towns, all send their sewage, absolutely without treatment, to mingle with its waters ; from which again Cleveland, Erie, Dunkirk, Buffalo and other towns take their water supplies—that is to say, the citizens of these several cities complacently drink raw water containing raw sewage.

1. A more extended description of the Zurich Water Works may be found in Mr. Preller's paper in the Proceedings of the Institution of Civil Engineers, already referred to.

The physical characteristics of Lake Erie, as exhibited in the foregoing, are the opposite of those of the Lake of Zurich—namely, the Lake of Zurich is in the heart of the Alps and protected from severe winds by the high mountains on all sides ; the opposite applies to Lake Erie. Again, the depth of the Lake of Zurich is such that the slight wave-action produced by the moderate winds of the region hardly ever penetrates to the bottom ; while in shallow Lake Erie a large portion of the bottom is stirred up with every severe gale.

This frequent stirring up of the bottom of Lake Erie would be far more serious in its effect on the quality of the water supplies if it were not for one modifying condition : the clay silt of the bottom is a good precipitant, and the clarifying process takes place much quicker after the gale is over than it would if the clay were absent.

Still, in any case, this frequent stirring-up of the bottom is serious enough in its effect on the water supplies, because while the gale continues, and for a short time thereafter, the deposited sewage of the previous longer or shorter period of calm is thoroughly commingled with the whole body of water.

There is another phase of this stirring-up process which we may briefly refer to. Dr. Drown has shown that the amount of oxygen in solution in the water of natural ponds and lakes decreases as we go towards the bottom, until, when the bottom is finally reached, it is, in many cases, nearly *nil*. It follows in such cases that the aërobian forms of microbic life must inevitably succumb to the anaërobian forms, which latter, including the bacillus of typhoid fever, have a free field in which to develop to the utmost limit of luxuriance.

If, then, we give the bottom a thorough stirring up occasionally, we certainly bring the reducing action of oxygen and aërobie life to bear upon objectionable organic matter which otherwise would never experience such influence except, in slight degree, at the annual overturning which takes place by reason of change in temperature.

In April and May, 1895, I examined Lake Erie somewhat carefully as a source of water supply, with reference to an extension of the water works of the manufacturing town of Lorain, on the south shore, about twenty miles west of Cleveland. As some of the results of that study are of general interest I will refer to them here.

Lorain is situated at the mouth of the Black river, which is estimated to have a catchment area of 410 square miles. The Black river flows through Elyria, a town of several thousand inhabitants and ten to twelve miles away. This town constructed water works in 1879 and although still without a comprehensive system of sewerage has, nevertheless, sewers in the main streets to which the hotels and principal business blocks have been connected for several years, and which, after the manner of other towns in general, debouch into the stream without treatment, and at what the authorities of Elyria consider the most convenient point, *i. e.*, at the least expensive to them. The net result is that Elyria contributes an appreciable amount of organic filth to the stream.

At Lorain the river is projected into the lake by jetty piers about one-third of a mile in length, while the main outlet sewer of Lorain enters the river near the shore end of the jettys.

The Black river issues from the clay areas of Northern Ohio, and, like all streams from such areas, is subject to extreme variations in its flow. For instance, the extreme dry weather flows are as low as from fifty to 100 cubic feet per second, while flood flows of from 10,000 to 12,000 cubic feet per second are quite common—they may be expected once or twice a year. The extreme flood flows run up to 15,000 to 18,000 cubic feet per second.

There is deep water from the mouth to about five miles back with a cubic content of 70,000,000 cubic feet. Beyond the deep water the river is generally rapid to and beyond Elyria. The sewage of Elyria receives the benefit of the rapid flow of several miles before entering the reach of still water at the foot of the rapids.

The present population of Elyria is about 8,000 and Lorain about 10,000, or the total population now contributing pollution to the deep-water section of the Black river is roundly 18,000, although previous to 1894 the population of Lorain was only about 5,000, but the location there of the Johnson Company's extensive steel plant has resulted in a doubling of the population in a few months.

During low water the velocity in the deep-water reach of the river is so slight that the polluting organic matter quickly settles to the bottom, where we may assume, from our recent advances in knowledge of such matters, that it remains nearly unchanged until the occurrence of a flood flow of sufficient volume to sweep it out into the lake. In this way the accumulation of several months

may be swept into the lake in a few hours, where, under certain conditions of winds and currents, it may be disseminated throughout the entire body of lake water for a radius of several miles from the mouth of the river.

In order to illustrate the possible effect of a large flood flow in contaminating a water supply situated like that at Lorain, it is pointed out that a flood flow of 15,000 cubic feet per second amounts to 1,116,000,000 cubic feet in twenty-four hours, a quantity of water sufficient to make ten feet in depth over an area of four square miles, or, what is the same thing, one foot in depth over forty square miles.

The water supply of Lorain is taken from the lake 1,300 feet west of the end of the jetty piers. On inquiring of the water works trustees of that town as to why the crib had been located so near the mouth of the river, I was told they had been advised when the location was made that since the currents in Lake Erie were from the west towards the east, if they went even a short distance west of the mouth of the river they would certainly obtain an unpolluted supply. The foregoing brief statement of some of the physical problems applying to such cases may serve to indicate the fallacy of such conclusion. Indeed, we may say it follows with the certainty of a proposition in mathematics, that a water supply taken in the vicinity of the mouth of a stream like the Black river is liable at times to a serious contamination. On this point extended observations, made in England, as to the relation between floods in the River Tees and the prevalence of typhoid fever in certain towns deriving their water supply from that river, show that in 1890 and 1891, the years in which the observations were made, nearly every flood was followed by a considerable rise in the typhoid fever rate in the towns observed.

The Health Department of the City of Buffalo has, to the credit of that city, instituted frequent systematic bacteriological examinations of the Lake Erie water as supplied to the consumers in Buffalo. By courtesy of Dr. William G. Bissell, city bacteriologist, I have been afforded an opportunity to examine the results of the last year's work. The most interesting point brought out is the great decrease in number of bacteria present in the water as it leaves the reservoir in comparison to the number in the water as it enters. The sedimentation frequently reduces the number from 30,000 to 40,000 per cubic centimeter to from 400 to 700 per cubic centimeter. In a practical way, however, it ought not to be over-

looked that the water at the bottom of the reservoir must contain vast numbers, among which it is probable that some are the specific morbid causes of disease. We may conclude, then, that the bottom needs to be cleaned frequently as a safeguard against possible contamination from this source.

The officials of the Buffalo Health Department are, however, disposed to say that Lake Erie is an unexceptionable source of water supply because they hardly ever detect the specific germ of typhoid fever. On this point I am compelled to disagree and cite the results of an investigation of the relation of the bacillus of typhoid fever to sewage made by Laws and Andrewes for the London County Council, as published in the early part of 1895.¹

Messrs. Laws and Andrewes state that working on ordinary London sewage they failed in every case to recognise the typhoid bacillus, until finally the failures were so numerous that they became oppressed by a sense of mathematical improbability. Thus the average amount of sewage produced in London amounts to 200,000,000 gallons per day. During June, 1894, while the investigation was in progress, 177 cases of typhoid fever were notified in London, to which may be added thirteen cases of continued fever, making 190 cases in all. Adding something for cases not reported and Messrs. Laws and Andrewes conclude that during June, when typhoid is by no means prevalent, it may be assumed that there were 200 cases in all. Some of these suffer from constipation and hence contribute very little fecal matter to the general mass of sewage. For these and other reasons cited, any estimate of the average amount of sewage contributed daily by typhoid cases in London must be purely conjectural, but at a reasonable estimate it is placed at one two hundred and fifty millionths of the whole, and, as Laws and Andrewes point out, every endeavor is made to disinfect this before it is allowed to pass into the sewers. The mathematical chances of detecting the typhoid bacillus in ordinary London sewage are, therefore, extremely remote. Assuming the typhoid bacillus to be intimately mixed with the ordinary sewage there would be only one typhoid bacillus in one-tenth of a cubic centimeter of sewage at the outfalls.

But the investigators only found it possible to work on one five thousandths of a cubic centimeter, and this only when 90 per cent.

1. Report on the Result of Investigation on the Microorganisms of Sewage. By J. Parry Laws and F. W. Andrewes. I am indebted to J. Ed. Worth, M. Inst. C. E., District Engineer, London County Council, for a copy of Messrs. Laws and Andrewes's study.

of the organisms were inhibited by the addition of 0.05 per cent. carbolic acid and incubation at 37° cent.

These considerations were so discouraging that it was determined to work on sewage from a fever hospital, and arrangements were accordingly made to allow the dejections from forty patients in the Eastern Hospital, at Homerton, to pass into the hospital sewer for two days without disinfection. A series of samples were then taken and cultivations made therefrom at once. Without going further into the detail, it may be stated that from the whole series of samples of sewage taken under these circumstances only two colonies of the bacillus of typhoid fever were certainly differentiated. In their summation Messrs. Laws and Andrewes say :

We must be content to have shown that in the drain from the typhoid block of a fever hospital, when the stools had not been disinfected for two days, a bacillus can be found which, so far as demonstration can go, is identical with that believed to be the actual cause of typhoid fever. So far as we are aware, this important fact has never been previously demonstrated.

It is because of technical difficulties of this sort that I am not willing to admit that mere failure to find the typhoid bacillus in Lake Erie water is any special proof of its absence. At the same time I do not overlook the beneficial effects of sedimentation in the reservoirs.

Returning to the study at Lorain, it was ascertained that the sewerage system of the town was completed in 1892, and a considerable number of water-closet connections were made in October and November of that year. Previous to 1892 the deaths from typhoid fever were only such a number as may be expected in the stated population when no special contamination of the water supply exists. The few deaths actually occurring were in the fall of the year, the normal season of typhoid fever. This fact leads to the conclusion that for the small amount of sewage then contributed to the Black river by the city of Elyria, the self-purifying agencies of the river and lake were sufficient, and even with the extremely unfavorable location of the intake no serious contamination took place ; but the contribution of even a small amount of raw sewage near the water works intake was sufficient to destroy at times the small margin of safety which had previously existed.

A further interesting fact of these Lorain typhoid epidemics is that during the winters of 1892 and 1895 Lake Erie was frozen over and remained closed for several weeks, during which time we

must conclude that because of the removal of the antagonistic agency of the aërobian forms of minute life, the bacillus of typhoid fever attained far greater development in Lake Erie water than is possible when the lake is open. The closing of the lake, then, by ice must be considered, the same here as at Zurich, a source of danger to any town using the raw water for domestic purposes. Taking into account that thus far the Lake Erie water supplies are all unfiltered and that in some years the lake is closed as much as three months, we are forced to the conclusion that this one consideration is a serious menace to every water supply on the lake.

As to the remedy to be applied to Lake Erie water, sand filtration is the only proper one thus far worked out. By this I mean filtration through broad beds of sand and not by mechanical filters. This method of filtration has been in use abroad for so long a time as to accumulate a body of experience which adapts it to every conceivable situation. Indeed, it has been used at the cities of Poughkeepsie and Hudson, in this state, successfully for twenty-five years.

It may be pointed out, however, that the fine clay silt, to which we have referred as present after every storm, complicates the problem of filtration of Lake Erie water to the extent that apparently settling basins of large area are a necessary adjunct of any filtration plant here.

The sands of the lake beach while clean are still not quite of the proper quality for efficient filtration as at present understood. Their use would greatly decrease the cost of a filter plant in comparison with what it would be if necessary to transport the sand from the ocean beach.

The management of the fine clay silt and the adaptation of the local sands are, then, the two problems for the Lake Erie towns to consider, and I cannot but think that more progress will be made toward a final solution by attacking the problem seriously and with due understanding of what has been done elsewhere than by assuming, as most of the Lake Erie cities have done, that in some way (thus far unexplained) Lake Erie has been excepted from the universal laws of water pollution which prevail in all other parts of the earth.

At any rate, the latter state of mind is not conducive to useful scientific results.

The time at my disposal will not permit of further discussion of these interesting as well as vastly important municipo-economic

questions. From the presentation here made we may draw the following conclusions :

1. Taking into account all the conditions, the diversity of practice between Liverpool and Zurich and the cities of the United States, is so great as to be only explainable on the basis that somewhere the municipal authorities are entirely wrong. If in Liverpool and Zurich, then the people's money has been spent extravagantly and unnecessarily. If, on the other hand, the error is on this side of the water, then the municipal authorities here have assumed very serious responsibility.

2. Personally, I have no doubt the European cities are right and ours wrong, the error here to be ascribed largely to lack of definite information among water works managers as to just what all the recent biological information really means.

3. The remedy is sand filtration of every Lake Erie water supply. The use of filtration methods abroad has placed this whole matter on a basis of definite experience, which it is folly on our part to longer ignore.

4. The cost of filtration, if properly designed and the use of water properly regulated, will not exceed about 40 cents to 50 cents per capita per annum, a sum which in view of the benefits to be derived our cities can well afford to pay.

5. The root of the whole matter will be found chiefly in improved methods of administration in the American municipalities. It may be set down as self-evident that a politically governed city will be far behind in all the arts which go to make life really safe as well as enjoyable.

A CASE OF MULTIPLE ECHINOCOCCUS CYSTS.

By WILLIAM C. KEYES, M. D., AND FREDERICK C. BUSCH, B. S.,
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MR. S., aged 53. German. His father died at the age of 71 ; his mother is living, aged 80. He was the last of four children. His habits were extremely intemperate. He often slept out of doors nights. He had typhoid fever in 1865 and some liver trouble in 1872. At this time, according to his statement, he passed a quantity of black marbles, probably gall stones.

His last illness dates from January, 1895. March 17, 1895, he came under the care of Drs. Hebenstreit and Meisburger. The clinical history, as obtained from them, is as follows :

He had pain in the right side, in the neighborhood of the liver ; he

coughed up greenish fluid, of a disagreeable odor and an acrid taste. The right chest was bulging; the right pleural cavity was aspirated and one syringeful of serous fluid removed. Small tumor-like masses, which could be felt just below the ensiform cartilage and to the right, were also explored with the hypodermic needle, with no result. Upon percussion the liver flatness did not extend downward below the free border of the ribs: it extended as high as the nipple in front and, at the same level, to the median line behind. In the axillary line there was flatness, extending to the crest of the ilium. There was an inguinal hernia on the left side.

The patient died March 16, 1896. The post mortem was performed thirty-six hours after death. The subject was emaciated. Rigor mortis was firm. There was the usual amount of post mortem discoloration of dependent parts.

Heart.—The pericardium was empty; the heart was of normal size; the muscle was flabby, soft and fatty degenerated; the leaflets of the aortic valves were calcareous at the base; the other valves were normal; the aorta appeared normal.

Lungs.—There was no fluid in the pleural cavities; the left lung crepitated well and was normal. The right lung was firmly adherent at the base to the diaphragm; it crepitated well. On section, bloody froth exuded from the bronchial tubes. A cavity with calcareous walls was discovered in the base of the lower lobe, measuring 50 mm. in breadth and 10 mm. in depth. It communicated with a bronchus on the one hand and on the other, through an opening in the diaphragm, with a similar though much larger cavity, immediately below the diaphragm. The latter, which was intimately connected with the diaphragm, measured 100 mm. in its horizontal diameter and 15 mm. in depth. It was also lined by calcareous plates. No opening could be discovered leading from it excepting that into the lung cavity.

Immediately beneath this subdiaphragmatic cavity was still another. It was partially surrounded by liver tissue and was intimately connected to the gall bladder and its duct by inflammatory adhesions. Its capacity was about 100 c.c. No connection could be demonstrated between it and the cavity above or with the gall bladder and ducts. The calcareous lining of all three cavities was bile stained.

The peritoneal cavity contained about 1,500 c.c. of serous fluid. In the omentum and mesentery were ten or twelve nodules, varying in size from that of a pea to a walnut and soft in consistence. On the left side, attached to the sac of the inguinal hernia, was one of these nodules. On section they were found to consist of concentric layers of gelatinous substance. Some of them showed cheesy and calcareous material. On microscopical examination hooklets were demonstrated in them.

The liver was small. The left lobe was large, somewhat distorted



FIG. 1.

KEYES-BUSCH—RIGHT KIDNEY WITH CYST. DORSAL VIEW. X. 5.

From a photograph by F. C. Busch.



FIG. 2.

KEYES-BUSCH—SCOLEX WITH HOOKLETS AND BROOD CAPSULE.
OBTAINED FROM KIDNEY CYST.

Photomicrograph by F. C. Busch.

and displaced by the pressure of a large cyst connected with the right kidney. The right lobe was greatly diminished in size, probably owing to the pressure of the cyst. Microscopically the liver showed much pigmentation, a large increase in connective tissue and some atrophy of epithelial cells.

The gall bladder contained about 15 c.c. of bile. It was normal in size; its mucous membrane appeared normal. Its duct was about the size of a quill. The hepatic duct contained a stone, oval in shape and about 1.5 c.m. in diameter.

The spleen was normal. The pancreas was fatty and showed an increase of connective tissue.

The stomach was somewhat dilated. The mucosa showed large dilated venules and ecchymoses and was covered by shining mucus. It was also much pigmented.

Intestines.—The lower part of the ilium was edematous, thick and greenish in hue. Upon section the thickening was seen to be chiefly of the peritoneal coat. There was also an increase of connective tissue in the submucosa. Several other parts of the small intestine showed limited areas of hemorrhagic infiltration, but no appreciable thickening. The appendix was entirely covered by peritoneum. It was about 10 c.m. in length and attached by adhesions to the brim of the pelvis.

The left kidney was large and pale. The right kidney was covered anteriorly by a large cyst. The anterior and upper half of this kidney was atrophied to half its normal size; the posterior half was flattened from the pressure of the cyst. (See Fig. 1.)

The cyst measured 18 c.m. in its long diameter and 14 c.m. in its short diameter, pressing upon the right kidney below and extending to the diaphragm above. It contained a large number of daughter cysts, many of them filled with a clear, limpid fluid, and of great beauty. Others were collapsed. In these, scolices with hooklets were demonstrated. (See Fig. 2.) Since the capsule of the kidney was continuous over the cyst, the latter probably arose in the cortex, leaving a cup-shaped excavation in it, which was occupied by one end of the cyst.

The urinary bladder contained about 47 c.c. of amber-colored urine. Examination of the latter revealed nothing of importance.

The nature of the cavity with a calcareous lining at the base of the right lung and of the two below the diaphragm, must be a matter of inference. Neither scolices nor hooklets were found in them. It is possible that one or all of them had previously possessed outlets other than those found at the post mortem, that subsequently became obliterated.

Two other cases of echinococcus disease have occurred in Buffalo, in the practice of Dr. Roswell Park, which he has not yet reported.

The disease is exceedingly rare in this country, Osler having been able to collect only eighty-five cases in the United States and Canada. Of these there were but three in which the cysts occurred in the kidney.

24 HIGH STREET.

NOTE ON THE REFRACTION OF SEVEN HUNDRED MEN.

By RICHARD H. SATTERLEE, M. D., Buffalo, N. Y.

IN THE EXAMINATION of 700 men during the past ten months for employment on a railway, 90 per cent. were farmers, with now and then a laborer, carpenter, soldier, mason, student, clerk, teacher, telegrapher, lawyer, actor, detective, plumber or sailor.

The standard of vision required was 20-20 in each eye. Of the 700 only twenty-three fell short of the standard. The refraction was as follows :

<i>Hypermetropia</i> less than one diopter in both eyes.....	199
one diopter or more in both eyes.....	490
more in right eye than left eye.....	60
more in left eye than right eye.....	9
highest degree of.....	8 dioptries.
<i>Myopia</i>	3
<i>Astigmatism</i> less than one diopter.....	599
axis other than 90 degrees.....	57
highest degree of.....	6 dioptries.
mixed (h. and m.).....	4
<i>Anisometropia</i>	4
<i>Visual acuteness</i> slightly better in right eye.....	257
slightly better in left eye.....	34
<i>Muscular defects.</i> A number had a deviation from what is considered the normal standard, but only three showed any marked defect.	

189 DELAWARE AVENUE.

MILK FILTERED THROUGH COTTON.—Dr. Seibert, of New York, has made a number of experiments with milk filtered through cotton. He finds that while the greater part of the germs are eliminated no cream is lost. Plain milk showed from thirty-eight hundred to two hundred thousand germs, while the same milk filtered showed about one-fourth that number. If this is true, filtration is about as good as sterilisation, and has an advantage in that sterilised milk is not so good a food as plain milk.—*Canadian Practitioner.*

Translation.

OPERATIVE TREATMENT OF ASTIGMATISM.¹

By PROFESSOR PFLÜGER, of Berne.

Translated from *La Clinique Ophthalmologique*, Paris, June, 1896,

By ALVIN A. HUBBELL, M. D., Buffalo, N. Y.

CLINICAL ophthalmometry, developed by Javal, has, by an association of natural ideas, given a glimpse of the possibility of the operative treatment of astigmatism. Traumatic or operative astigmatism consecutive to extraction of the crystalline lens has given form to this idea.

I have considered this question for seven years, and five years ago I presented cases operated upon. I reserve the publication of a further note on this subject, not yet being satisfied with the technique and dosage of the operation. Today, however, I will say a few words, seeing that the same ideas begin to appear elsewhere.

I have been surprised at the changes of curvature of the cornea, following aphakia in eyes strongly myopic (I presented such cases in the form of a table on the occasion of my first communication to this congress: Cessation of strong myopia by aphakia). Every one of us knows sufficiently well that inverse astigmatism ordinarily occurs after operation for senile cataract, the diminution of curvature of the cornea being perpendicular to the incision, and its increase in the direction of this incision, and finally the progressive diminution of this post-operative astigmatism going on from month to month. We know, likewise, that considerable, and often quite regular, astigmatism follows perforating wounds of the cornea, and also ulcerations between the center and limbus without perforation.

Therefore, from these facts, I have begun my trials of correction of astigmatism of the cornea by establishing a loss of substance at the periphery of the cornea, parallel to the limbus, nearly in the region of the arcus senilis. The diminution of the refraction perpendicular to the direction of the wound is made without alteration of the curvature of the cornea in the inverse direction. But the cure is delayed too long and the patients weary of the treatment. For this reason, I have tried to establish a loss of substance of the cornea by the aid of a special "plane" which I

1. Read at the Congress of the Société Française d'Ophthalmologie, Paris, May, 1896.

have had constructed with this effect. The idea appeared to be better than its realisation. After several operations, I decided to return to the simple incision of the cornea with the iridectomy knife, having in mind, always, the diminution of the vertical curvature, and less, its augmentation in the direction parallel to the wound.

I make use of some of those rare cases of myopic astigmatism, either of young men desiring to enter military service who are excluded by reason of their astigmatism, or of young women suffering from asthenopia from rather weak degrees of astigmatism.

The correction of hypermetropic astigmatism seems to me to remain a desideratum.

The extraction of the lens in strong myopia, in which I have carefully measured the curvature of the cornea before and after operation, has shown me that, contrary to my ideas, quite often the curvature of the cornea was augmented in all directions.

In the extraction of artificial cataract I have made the incision as much as possible perpendicular to the meridian of greatest refraction. Sometimes, however, I have not followed this rule because of contra-indications which I could not neglect, and this is why the astigmatism is found increased in certain cases in the place of having diminished.

Occasionally, I confess, I have not thought of the correction of the astigmatism. Quite often, moreover, it has not existed. (Here the author presented a table of forty-five cases in which measurements had been taken before and after operation.)

My observations show that in more than one-fourth (twelve) of the cases operated upon, the two principal meridians have gained in refraction; that in one-fifth (nine) the two meridians have been flattened.

It would be too thankless a task to study very closely the conditions in which an incision of the cornea would effect definitely an augmentation or diminution of the corneal refraction in one meridian or another and to establish a technique of incision of the cornea which will permit one to correct at pleasure a myopic, hypermetropic or mixed astigmatism.

Besides making ophthalmometric measurements before the operation and after it at repeated and prolonged intervals, there should also be considered in these investigations the distance of the corneal incision in relation to the limbus, the size of this incision and its obliquity.

Repeated reopening of the wound would have an influence, probably, on the definite cicatrization and on the change of the curvature of the cornea.

The age of the patient and the elasticity of the tissues should not be neglected.

As I have shown above, there are other procedures than incision of the cornea to change its curvature. A glimpse is thus given to other methods than those here mentioned capable of producing a change of the cornea with a therapeutic purpose.

It is the coöperation of all our confrères which will aid in shortening the road by which to reach the operative correction of astigmatism.

Society Proceedings.

MEDICAL SOCIETY OF THE COUNTY OF CHAUTAUQUA.

Reported by CHARLES A. ELLIS, M. D., Secretary.

THE annual meeting of the Medical Society of the County of Chautauqua was held at the Hotel Atheneum, Chautauqua, N. Y., Tuesday, July 14, 1896.

The president, Dr. E. S. Rich, of Kennedy, called the society to order at 11 o'clock A. M. for the transaction of business.

The following-named were elected officers for the ensuing year : President, E. S. Rich, M. D., Kennedy ; vice-president, M. N. Bemus, M. D., Jamestown ; secretary and treasurer, C. A. Ellis, M. D., Sherman ; delegates to the Medical Society of the State of New York, C. A. Ellis, M. D., and E. S. Rich, M. D.

AFTERNOON SESSION, 2 O'CLOCK.

President's address. Management of chronic valvular diseases of heart, Dr. Chas. G. Stockton, Buffalo, N. Y. A study of some phases of tuberculosis, Dr. A. D. Lake, Gowanda, N. Y. General discussion. Anesthesia in obstetrics, Dr. J. W. Morris, Jamestown, N. Y. Discussion, Dr. J. H. Wiggins, Jamestown, N. Y. Erysipelas, Dr. M. N. Bemus, Jamestown, N. Y. Criminal abortion, Dr. James Murphy, Sherman, N. Y. Discussed by Dr. T. D. Strong, Westfield, N. Y. ; Dr. E. A. Scofield, Bemus Point, N. Y.

Dr. V. M. GRISWOLD, of Fredonia, called attention to the fact that hydrochlorate of quinine was a safe and efficient local anesthetic when used hypodermatically, but he stated that it was not

absorbed by mucous surfaces. He had been using it for some time and considered it much safer than cocaine.

The following named physicians were present as guests of the society: Drs. Chas. G. Stockton, Lucien Howe and C. C. Frederick, of Buffalo; Dr. Gould, of Philadelphia; Dr. Seaver, of Yale College, and Dr. Bainbridge, of the Presbyterian Hospital, New York City.

Upon invitation of the management of the Chautauqua Assembly, a number of ladies, wives and relatives of the members, were present, and through the courtesy of the assembly the visiting cards of physicians were received as admission tickets to the grounds for two days, accompanying ladies included.

In the evening a banquet was given at the Hotel Atheneum, at 8.30 o'clock, at which the ladies were present. Prof. Geo. E. Vincent, of Chicago, acted as toastmaster, when the following list of toasts was offered:

The Chautauqua County Medical Society—its past and present, Dr. T. D. Strong, Westfield. The press, Mr. Fred. W. Hyde, Jamestown. The pedagogue, Supt. W. L. MacGowan, Warren, Pa. The physician's wife, Mrs. O. C. Shaw, Kennedy. Chautauqua, Prof. Geo. E. Vincent, Chicago. Vocal solo, Mrs. Morris N. Bemus, Jamestown.

This was one of the most interesting and successful meetings ever held by this society and should tend to stimulate renewed interest in its proceedings in the future.

Progress in Medical Science.

PHYSIOLOGICAL CHEMISTRY.

REPORTED BY JOHN A. MILLER, PH. D.,
Professor of Chemistry, Niagara University.

IRON IN FOOD.

RALPH STOCKMAN (*J. Physiol.*, 1895; *J. Chem. Soc.*, 1896). The ordinary daily diet was found to contain about 9 or 10 milligrams of iron; but in chlorotic people, who take but little food, the amount was about 3 milligrams. The following articles of diet were also examined: Milk, from 2 to 4.3 milligrams per liter; oatmeal, 3.5 milligrams per 100 grams (dried);

bread, from 0.6 to 0.85 milligrams per 100 grams (dried); yellow ox marrow, 2.5 to 4 milligrams per 100 grams (dried); red calf marrow, 7.6 to 8.7 milligrams per 100 grams (dried); beefsteak, 3.9 milligrams per 100 grams (dried).

FORMATION OF BLOOD FROM INORGANIC IRON.

JOSEPH A. KUNKEL (*Pflüger's Archiv.*, 1895; *J. Chem. Soc.*, 1896). As a contribution to the disputed question whether inorganic iron is absorbed and contributes to blood (hemoglobin) formation, experiments were made on two puppies; one received milk, in which the amount of iron was ascertained, the other the same food plus iron. The milk contained about 1 milligram of metallic iron (1.4 milligrams $F_2 O_3$) per liter. The extra iron given daily was 30 drops of liquid ferri albuminat of the German Pharmacopeia (=4.4 milligrams of iron). During life, the blood was examined at weekly intervals. After death other organs were submitted to analysis. A greater amount of iron was found in the dog to which iron had been administered.

TOXIC SUBSTANCE FROM THE SUPRA-RENAL CAPSULES.

D. GOURFEIN (*Compt. Rend.*, 1895; *J. Chem. Soc.*, 1896). The glycerine extract of the supra-renal capsules contains proteids which are precipitated by alcohol and have little or no toxic effect, together with substances which are not precipitated by alcohol and are highly toxic. As the latter are not decomposed by heat, the capsules can be extracted with hot water, the solution precipitated by alcohol and the clear liquid evaporated on a water bath. The product when injected subcutaneously causes death in a short time and seems to act on the central nervous system. The proportion of the poison in the supra-renal capsules is variable, but no similar effects are produced by extracts of the spleen or the muscle of the same animals treated in the same way.

SUCCUS ENTERICUS OF SHEEP.

FRITZ PREGL (*Pflüger's Archiv.*, 1895; *J. Chem. Soc.*, 1896). The present experiments were made on a lamb. The juice was collected by a modification of the Thiry-Vella method. It is a mucous, strongly alkaline fluid, which is rich in proteid and tends, like pancreatic juice, to set into a jelly spontaneously; its specific gravity is about 1,014. It contains about 0.2 per cent. of urea.

The following analysis is given in parts per 1,000 : Sodium carbonate, 3.69 ; albumin and globulin, 18.09 ; albumoses and mucin, 1.27 ; urea, 2.29 ; other organic substances, 3.31 ; ash, 1.27 ; water, 970.05. On proteids, cellulose, pentoses and fats it has no digestive action, but it converts starch and glycogen into dextrose with intermediate dextrins ; it inverts cane sugar and maltose, but not lactose.

ELIMINATION OF CALCIUM COMPOUNDS IN RACHITIS.

WILLIAM OECHSNER DE CONINCK (*Compt. Rend.*, 1895 ; *J. Chem., Soc.*, 1896). In cases of rachitis the quantity of calcium in the urine gradually diminishes in the same manner as the quantity of magnesium. When elimination of magnesium is small, however, that of calcium is relatively high, and this result has led the author to conclude that in rachitis the calcium of the osseous system is partially replaced by magnesium. Chabrie has arrived at a similar conclusion with respect to osteomalagia.

RESPIRATORY METABOLISM.

W. FILEHNE and H. KIONKA (*Pflüger's Archiv.*, 1892 ; *J. Chem. Soc.*, 1896). Geppert and Zuntz (*ibid.*, 42) have shown that during muscular work, in spite of the increased respiratory exchange, the blood gases remain practically unaltered. They consider that this constancy is regulated by nervous action, and one of the questions investigated in the present research is the discovery of the nerve channels and the results of dividing them. Rabbits and dogs were used ; muscles were thrown into tetanus by electrical stimulation and the expired air and blood gases analysed by Zuntz's methods. Observations are also recorded on body weight and temperature.

The result of cutting the nerves of the tetanised muscles is that muscular work caused a fall in the amount of oxygen in the aortic blood ; there is also a small diminution in the amount of carbon dioxide. But when the vagi are also divided there is a marked rise in the latter gas and a fall in the amount of oxygen ; the vagi are supposed to be the chief nervous channels in question, experiments leading to the conclusions that it is on the vagal terminations in the lungs that the venous blood specially acts and thus secondarily on the respiratory center ; and further, that the diminution of oxygen is a more important factor in exciting dyspneic symptoms than

increase of carbon dioxide. On the other hand, it appears to be the increase of carbon dioxide in the muscular substance which excites the sensory nerves of muscle and so reflexly influences the respiratory mechanism.

The blood gases and respiratory activity appear to bear no constant relationship to each other; thus the animal may breathe when the arterial blood has much oxygen and little carbon dioxide, and the pauses may occur when the opposite condition of the blood gases is present. Fatigue of the respiratory center is also dismissed as an explanation of the phenomena; the real explanation is left an unsettled problem.

ACTION OF SALTS ON THE GASTRIC DIGESTION OF FIBRIN AND OF ACIDS ON THE SALINE DIGESTION OF FIBRIN.

A. DASTRE (*Compt. Rend., Soc. Biol.*, 1894; *J. Chem. Soc.*, 1896). The proteolytic action of acidified pepsin is prevented by concentrated salts, like sodium or ammonium chloride; the proteolytic action of concentrated saline solutions is prevented by acidification.

OXIDISING POWER OF THE BLOOD.

J. E. ABELOUS and G. BIARNÈS (*Compt. Rend., Soc. Biol.*, 1894; *J. Chem. Soc.*, 1896). Salicylaldehyde is not oxidised to salicylic acid by the air or by distilled water or physiological saline solution at 37° C. The acid is, however, formed when defibrinated blood or serum is added at this temperature, although this does not occur at the temperature of the air. The amount of oxidation varies with the blood of different animals and is attributed to a specific ferment, which is destroyed by boiling. Certain organs (testes, thyroid, adrenals, thymus, kidney, liver, lung and spleen) possess the same power, which is lost when vitality is destroyed; it is not shown by muscles, brain or pancreas.

ACETONURIA.

J. H. ABRAM (*J. Pathol. and Bacteriol.*, 1896; *J. Chem. Soc.*, 1896). The present experiments confirm Becker's original statement that acetonuria follows anesthesia in two-thirds of the cases, the anesthetic used making no difference; if acetonuria is present before, anesthesia increases it. The probable source of acetone is proteid destruction. The practical outcome is that, except in cases

of urgency, anesthetics should not be administered to diabetic patients.

EHRLICH'S DIAZO REACTION.

R. T. HEWLETT (*Brit. Med. J.*, 1896 ; *J. Chem. Soc.*, 1896). Several modifications have been proposed in the original method of testing with sulphanilic acid and sodium nitrite. The reaction is invariably given by the urine in typhoid fever, although occasionally it is seen in other diseases also.

Attention is drawn to the fact that the test solutions must be freshly prepared before using.

The nature of the substance in the urine that gives the reaction is uncertain, and of a large number of materials examined morphine was the only one which gives a similar red reaction, but no green precipitate forms on standing. One part of morphine in 10,000 of water gives the test.

PASSAGE OF SODIUM IODIDE FROM THE BLOOD TO THE LYMPH.

L. B. MENDEL (*J. Physiol.*, 19 ; *J. Chem. Soc.*, 1896). This is a contribution to the vexed question of lymph formation. The author supports Heidenhain's view that physical processes will not explain lymph formation. Sugar and sodium chloride occur in greater amount in lymph than in blood, and the same is true for sodium iodide after injection into the blood stream.

These facts are considered to bear out the doctrine of lymph secretion.

INTESTINAL ABSORPTION OF PEPTONE.

E. H. REID (*J. Physiol.*, 1896 ; *J. Chem. Soc.*, 1896). Experiments were made on dogs, loops of the intestine being measured off and tied by tapes ; into these recently exposed loops the peptone was injected ; parallel experiments were always conducted on two loops. After a quarter of an hour the dogs were killed, the loops were removed and their contents examined. A table of six experiments is given, showing an absorption of from 40 to 70 per cent. of the peptone introduced ; the difference between the two loops was never more than 5 per cent.

UREA IN ANIMAL ORGANS.

B. SCHÖNDORFF (*Pflüger's Archiv.*, 1895 ; *J. Chem. Soc.*, 1896). By means of the method previously described by the author he

finds in the organs of a dog, with the exception of the muscles, heart and kidneys, urea in quantity corresponding with that in the blood.

The muscles contain urea. This is a direct contradiction of the work of previous physiologists; it is present in too large an amount to be accounted for by the blood in the muscles.

Urea is a constituent of the red corpuscles, and is indeed about equally divided between blood corpuscles and blood serum.

GENITO-URINARY AND SYPHILITIC DISEASES.

CONDUCTED BY BYRON H. DAGGETT, M. D., Buffalo, N. Y.

SALICYLATE OF SODIUM AND URIC ACID.

BOHLAND (*British Medical Journal*, February 8, 1896,) states that it would appear, according to the researches of some authorities, and it is confirmed by his own investigations, that this drug produces an increased excretion of uric acid only when there is an increased production of this substance.

According to Horbaczewski, uric acid is the metabolic product of nuclein, which latter is derived from the white blood cells.

Hecken and Bohland found that sodium salicylate considerably increased the excretion of uric acid, but that the number of leucocytes was also greatly increased.

Medium doses of salicylates produce a distinct increase in the white cells, and, if Horbaczewski's theory is correct, a considerable leucolysis, and through this latter an augmented uric acid excretion.

Sodium salicylate has been found useless in a number of cases of gout. Some authorities admit that it is of no service in cutting short the attack, but claim that it is a valuable analgesic in gout. According to this evidence salicylates should not be used in gout or in the uric acid diathesis.

THE SERUM TREATMENT OF SYPHILIS.

BORLING (*British Medical Journal*, February 8, 1896,) reports a case of syphilis successfully treated by serum.

His patient was a middle-aged man, who presented a chancre on the dorsum of the penis, over the corona, with all of the characteristics of a Hunterian sore. This chancre spread and developed phagedena, growing rapidly, in spite of the usual treatment by mercurials for a month.

Antisymphilitic serum 1 c.cm. was injected December 31st into the left flank. The evening temperature was normal and there was no apparent effect.

January 1, 1896, 2 c.cm. of serum were injected into the right flank. This caused malaise for about one hour and distinct redness and increased swelling round the chancre.

January 2d, 3 c.cm. were injected in the left flank, producing no further appreciable change.

January 3d, 4 c.cm. were injected in right flank. The chancre had not spread since the beginning of the serum treatment and the patient felt "all right." Temperature slightly increased.

January 4th, the eruption had nearly disappeared and the slough was separating.

January 6th, the slough was detached and the surface was granulating. General condition of patient improving.

January 25th, the patient had gained in weight. The wound was nearly healed.

Owing to the urgency of the symptoms 10 c.cm. of serum had been given in four days. Apparently, the serum treatment was effective and prompt.

CASTRATION FOR HYPERTROPHY OF THE PROSTATE.

KORSING (*British Medical and Surgical Journal*, February 8, 1896,) has changed his views regarding the value of this treatment. This author, while recognising as an undoubted fact the rapid atrophy of the enlarged prostate after removal of both testes, held that it was a priori very improbable, that in cases of complete and chronic retention the bladder would ever renew its capacity for contraction, claiming that it was useless to remove the obstruction when the bladder had lost its function for expelling the urine.

The persistency of retention in spite of regular and repeated catheterisation was, in his opinion, a conclusive indication that the function of the bladder had been hopelessly abolished.

These conclusions were upset by the following case: A man 85 years of age, who had not passed a drop of urine, except by artificial means, for eleven years, was able to pass water normally two months after castration, the residuum at the end of twenty-four hours amounting to 30 c.cm.

The operation was performed for the purpose of facilitating the passage of the catheter. The occurrence of complete retention in cases of enlarged prostate is difficult to account for, after

this recorded clinical fact, by views hitherto held by surgeons. The restoration of the contractility of the bladder after eleven years, opposes the views of Guyon on coördinate arterio-sclerosis and the purely mechanical explanation of hypertrophy, hyperdistention, atrophy and paralysis. Eleven years of catheterisation, according to our accepted theories, would irretrievably destroy the contractile function of the bladder.

Whether retention is due to the increased size or form of the diseased prostate, or whether the loss of vesical contractility and prostatic hypertrophy are the results of a single and as yet unknown cause, are open questions.

ENURESIS.

NASON (*British Medical Journal*, February 8, 1896,) reports a case of nocturnal incontinence of twenty-two years' standing cured by galvanism :

S. H., female, 22 years of age, had suffered from her earliest childhood with enuresis and too frequent micturition. Her health was good in all other respects and the urine apparently normal. Neither belladonna, rhus aromatica nor other remedies had any influence in relieving her malady.

Nason then applied the following procedure with success : He passed a No. 10 catheter into the bladder, attaching it to an irrigating fountain containing a solution of boric acid, which was injected by slight force of gravity, until slight pain was evident, or the bladder was comfortably full, when the positive pole of a constant current battery was applied over the lumbar spine and the negative electrode was placed in the reservoir. A weak galvanic current was passed for ten minutes. This process was repeated every night for a fortnight and then at longer intervals. The toleration of the bladder was increased at the end of a fortnight so that it would hold twenty ounces, beginning with four. This treatment was continued fortnightly for some months and the patient remained practically well four months after having been discharged convalescent.

A boy, who for five years, night and day, suffered from enuresis, consulted the abstractor. There was a history of injury preceding his urinary difficulty, which had been treated during this time by various remedies and posthectomy had been performed, still the malady remained unimproved and uncured.

The bulbous bougie revealed a fine resilient stricture about midway in the penile urethra. Stretching this stricture with a steel sound relieves the enuresis for longer periods each time. Cure of the stricture will undoubtedly relieve the urinary difficulty.

This stricture reflexively disturbed coördination of the urinary mechanism, inducing frequent involuntary urination.

THE DIAGNOSIS OF LIQUID AND SEMI-LIQUID FORMATIONS IN THE INGUINO-SCROTAL REGION.

MANLEY (*Journal of Cutaneous and Genito-Urinary Diseases*, July, 1896,) denies that the diagnosis of hydrocele is usually easy, alleging that his experience with more than fifty cases of neoplastic and adventitious formations within the scrotum, during the past ten years, has convinced him decidedly to the contrary. The correct diagnosis of scrotal hygromata is a matter of greater importance than is generally supposed. Precise and accurate diagnosis points the way to simple, safe and radical treatment. For example, a serous cyst of extravaginal growth is permanently cured by decortication and avulsion. In one-fourth of his cases cystic tumors were found and removed.

Symptomatology.—The subjective symptoms give a hint as to the probable character of scrotal cystic tumors. Note whether a marked cachexia be present and whether there is vesical or intestinal disturbance. Impairment of sexual power indicates pressure upon the cord or testicle. Severe pain and hectic indicate tubercular disease. All tumor formations, excepting malignant and syphilitic varicocele, diminish in volume in the recumbent position. This is notable in hernia, and general in hydrocele and funicular cysts. Hydroceles and serous cysts produce no positive subjective symptoms until they attain considerable volume.

The diagnostic features of hydrocele and cerocystic disease are made manifest by : (1) increase in volume of scrotum ; (2) palpation ; (3) fluctuation ; (4) transparency ; (5) aspiration ; (6) open incision.

Enlargement of the scrotum points to hydrocele, if it begins at the base, comes on gradually unaccompanied with tenderness or fever. Scrotal tumor appears suddenly, beginning in the groin. Preceded by strain and accompanied with pain, hernia is indicated. Those suffering from bubo often claim strain as a cause.

Palpation.—By palpation we learn the consistence, form, relations, outline, sensibility and temperature of the parts. In large or tense hydroceles the position of the testicle cannot be defined. It apparently floats in the fluid, anchored from its stalk in the gubernaculum. Again, thickening and induration of its investments renders its detection impossible or very difficult.

If we find the testicle knoblike, isolated and projected against any part of the wall of the scrotum, we may be quite sure that the tunica vaginalis is not involved, and that we have a hernia, a scrotal cyst or a neoplasm advancing downward, either from the epididymis or the funicular process.

Fluctuation.—The investing capsule may be distended to such a degree of resistance and hardness that fluctuation is suppressed. Again, lipomata and sarcocele may give a sense of fluctuation.

Translucency and Transparency.—All hydroceles do not transmit light. When fluid is present in small quantities, or when the prevaginal fascia is greatly thickened by chronic inflammation, or when pigmentation has taken place, this sign may be entirely absent. Percival Pott said that

The transparency is the most fallible and uncertain sign belonging to it, and is a circumstance which does not depend on the quality, consistency or color of the fluid constituting the disease, so much as the uncertain thickness of the bag and of the common membrane of the scrotum. If they are thin, the fluid is so quickly formed as not to give the tunica vaginalis time to thicken much; the ray of light may be seen to pass through the tumor, but this is accidental and is not to be depended upon. Whoever would be acquainted with the disease must learn to distinguish it by other and more reliable means, or he will be apt to fall into disgraceful and pernicious blunders.

The scrotal distension of general dropsy is always transparent to reflected light. Evidently transparency and fluctuation are not, of themselves, positive and certain in differential diagnosis of scrotal tumors.

Puncture or Aspiration.—It decides the presence or absence of fluid. If fluid be withdrawn, its character and source may be determined. Before puncture the question of hernia must be eliminated. The fluid of hydrocele presents many of the characters of plasma and not that of an aqueous transudation. Its characteristics point to inflammatory origin. The microscope shows fragments of endothelia, a granular substance, cholesterine and, occasionally, spermatozoa.

The Open Incision.—This is more positive and exact than all other means of diagnosis combined. The free, open incision permits thorough exploration of the parts by the senses of sight and touch, making diagnosis positive and at the same time it is effective as a cure. Under complete antiseptic precautions exploratory incision is justifiable as a diagnostic expedient; at the same time it opens the way for a rapid, complete and successful surgical procedure. Scrotal vitality is feeble, hence this incision should not be practised upon debilitated old men.

The Diagnosis of Complicated Hydrocele.—Hydroceles occasionally complicate hernia. While their anatomical bases and physical characters widely differ, yet they are alike in one respect: they form scrotal tumors. Accumulations of fluid within the scrotum seldom cause inconvenience, except they attain considerable volume.

In all cases of hernia complicated with sufficient effusion to cause inconvenience or suffering, when there are no contra-indicating conditions present, we should not hesitate to open, evacuate and inspect. Nonreducible hernia, in children, complicated with cyst or hydrocele, incision will render diagnosis certain and favor spontaneous cure.

Victor Bougu (*Thèse de la Faculté de Paris*, 1896,) emphasises the advantage of the free incision as a precise means of diagnosis in all varieties of cystic diseases of the scrotum. Absolute diagnosis determines rational, definite treatment. About one-third of the cases sent to Dr. Manley for treatment of supposed hydrocele were proven by incision to be purely neoplastic or adventitious formations. They presented the general features of hydrocele, differing in their mode of development and in the position of the testis. In large hydroceles the testis cannot be detected, while in scrotal cysts it is isolated, and, occupying an independent position, some of these hygromata behave much like hernia. Uncomplicated neoplastic cysts develop within the loose myxomatous tissue of the spermatic cord, or from the "hydatid of Giraldès." There are no constitutional disturbances, no history of infection, no fever, hectic or pain. Their fluid contents shed some light on their pathological composition. It is of lower specific gravity and has fewer epithelial cells than the fluid of hydrocele. It is watery, colorless and alkaline in reaction and occasionally a few disintegrated spermatozooids are found. In doubtful cases, make a free incision for positive diagnosis as well as for a radical cure by

dissection. All danger is avoided by thorough asepsis and hemostasis.

MEDICAL EDUCATION AND STATE MEDICAL EXAMINATIONS.

CONDUCTED BY WILLIAM WARREN POTTER, M. D., Buffalo, N. Y.,
Member New York State Medical Examining and Licensing Board.

President National Confederation State Medical Examining and Licensing Boards, 1896-'97.

THE STANDING OF MEDICAL COLLEGES.

THE following letter from the secretary of the Ohio State Board of Examination and Registration and the accompanying resolutions show important action :

COLUMBUS, O., June 2, 1896.

Editor Lancet-Clinic :

I enclose copy of resolutions adopted by the board at the last meeting in regard to the standing of medical colleges. At the last two meetings of the board there have been eight candidates examined, and of the eight the following-named gentlemen received average grades which entitle them to certificates : Chas. H. Scott, McConnellsville ; J. M. Van Tilburg, Lorain ; J. W. Kannel, Rockford ; Firmin W. Wurtsbaugh, Rush Creek ; Jas. K. Brammer, Asbury ; J. L. Kirby, Laurelville.

At the last meeting of the board a number of affidavits from graduates in medicine were passed upon and certificates were ordered to be issued, but, owing to the delay in receiving certificates from the engraver, we will not issue any before about June 10th. The applications of legal practitioners have not been taken up by the board, but most of them will be acted upon at the next regular meeting.

Very respectfully,

FRANK WINDERS,

Secretary.

“ *Resolved*, That all medical colleges of the United States requiring a minimum of three years' study of medicine and two courses of lectures for graduation, prior to 1886, and possessing proper facilities for teaching and a faculty embracing the chairs of anatomy, physiology, chemistry, materia medica, therapeutics, medicine, surgery and obstetrics, shall be recognised as in good standing, and diplomas issued by the same, properly verified, shall entitle the holders thereof to register as graduates in medicine under the law of Ohio ; providing, that no certificate shall be issued to any applicant upon proof that his or her diploma has been

obtained fraudulently or in violation of the published rules of the colleges issuing the same.

“ *Resolved*, That for the ten years ending February 27, 1896, all medical colleges exacting the foregoing requirements and possessing facilities and a faculty as specified in foregoing resolution, shall, by virtue of such facts, be recognised as in good standing to and including the year 1892, but that no medical college shall be recognised as in good standing which has not since 1892 possessed the foregoing facilities and faculty, and which has not in addition exacted an entrance qualification and attendance upon three regular courses of lectures as a condition of graduation.

“ *Resolved*, That on and after July 1, 1899, no medical college shall be recognised as in good standing which does not require the entrance qualification prescribed by the ‘ Association of American Medical Colleges ’ as a prerequisite for matriculation; which does not possess an adequate equipment for teaching medicine; which has not clinical and hospital facilities, based upon a minimum municipal population of 50,000, and which does not have an active faculty embracing the departments of anatomy, physiology, chemistry, therapeutics, materia medica, surgery, medicine, obstetrics, histology, pathology, bacteriology, ophthalmology, otology, gynecology, laryngology, hygiene and state medicine, and which does not enjoin attendance upon 80 per cent. of four regular courses of instruction, of not less than twenty-six weeks each, in four different years, and which does not exact an average grade of 75 per cent. on examination as conditions of graduation; providing that the rule relative to population as a basis for clinical and hospital facilities shall not apply to institutions under state control, and that, by virtue of such control, receives, gratuitously, patients from all parts of the state in which such colleges are located.”

THE Ohio State Board of Medical Examiners did a good thing when it passed a rule by which it regards as irregular any medical college located in a city of less than 50,000 inhabitants. One so-called school of medicine in Ohio promptly closed shop on the promulgation of the above order. The State Board is very apt to do a whole lot of good right straight along, for its destiny is to get directly in the way of such things.

It was very gratifying to all concerned to observe the way in which the Ohio State Medical Society unanimously endorsed every bit

of the action of its legislative committee. A prominent quack who stood by and looked on didn't smile, but looked as though he felt the seriousness of his situation. His occupation has slipped out of his hands, and it is well that he should engage in another business or go back to Germany, where he says his school flourishes. It will be hard to endure. America is a splendid burden-bearer, so it may be said his absence can be borne. Where is that part of a gentleman's wardrobe commonly called a handkerchief?—*Lancet-Clinic*.

DIVISION OF MEDICAL EXAMINATIONS.

THE following is the report of the committee on division of state medical examinations :

To the President of the State Board of Medical Examiners, representing the Medical Society of the State of New York :

In compliance with the instruction of the New York State Medical Examining and Licensing Board made at its last annual meeting, as well as the published notice from the regents' office, the undersigned committee met at the Fifth Avenue Hotel, New York City, February 15, 1896, to listen to arguments pro and con relating to the division of medical examinations for license to practise in this state.

After listening to the various arguments submitted at the hearing, and duly weighing the same, your committee begs to submit the following report :

First—The committee was addressed in favor of the division by the following-named gentlemen : Profs. J. H. Raymond and W. W. Brown, on behalf of Long Island College Hospital ; Profs. R. A. Witthaus and W. Gilman Thompson, on behalf of the Medical Department University of the City of New York ; Prof. Phœbe J. B. Waite, on behalf of the New York Medical College and Hospital for Women (Homeopathic) ; Prof. George W. Boskowitz, on behalf of the New York Eclectic Medical College.

Second—These arguments may be briefly summarised as follows : According to Dr. RAYMOND, a student has now to pass in the colleges an examination on about twenty-three subjects, whereas there were formerly but seven ; that it is his belief, as a result of his experience, if the men were relieved of anxiety by passing the state examination at the end of two years in the so-called elementary or fundamental subjects—anatomy, chemistry and physiology—it would leave the last year in college to be devoted to the practical branches—surgery, obstetrics,

practice, and the like—thus insuring a more perfect equipment in the latter ; that better clinical instruction could be given in the final year if the state examinations were so divided ; that Saturdays and holidays were now spent in preparing for the state examination instead of in the clinic rooms ; that as academic institutions divided their examinations, why should not the state ? that medical colleges have adopted this division of examinations, hence the state ought to conform to their practice ; that, finally, the division is urged in the interest of impecunious students whose existence may depend upon passing the state examinations. Dr. Raymond admitted the good work that the state board was accomplishing, and said his college would hail the day when the law was changed to make a four years' course obligatory.

Dr. BROWNING thought that a state examination on the elementary subjects one year prior to graduation would be a better test, than an examination given at the close of the college course to demonstrate that a man had sufficient knowledge of anatomy to be admitted to practice ; that, adopting the theory that an easy examination in anatomy is given at the close of the college course rather than a severe one a year before license is granted, then the present syllabus should be withdrawn ; and that in case it is deemed advisable to divide the examinations, legislation will become necessary to permit it.

Dr. WITTHAUS claimed the real question at issue to be whether a graded system of instruction is or is not better than the old-fashioned one of going over the same thing two or three times ; that he gets better results in chemistry under the present system, as students study harder and learn more ; that he would not have the severity of the chemistry examinations abated one particle ; that it is of the first importance in the advances that medicine is making that a physician should be thoroughly grounded in the fundamental branches before going on with the others ; that he would not have the slightest abatement in the severity of those examinations ; and, finally, that it is not within the power of the board to make this change, hence legislation will become necessary to permit it.

Dr. THOMPSON affirmed that the present working of the state examinations, conducted as they are at one time, is a hindrance to the graded course system ; that a graded state examination could be conducted on severer lines than is done under the present plan, which latter idea he would favor ; that we are apt to attach too much importance to examinations, but they are tests that we must apply, and this can be done with greater advantage in a graded system ; that the present method of conducting state examinations is an interference with the graded method, and that he fully concurs in the remarks made by Drs. Raymond and Witthaus.

Dr. WAITE favored the proposed change in state examinations because it conformed to the college graded system, relieved the

students of mental strain and otherwise favored advanced medical education.

Dr. Boskowitz favored the division of the state examination, but advanced no arguments others than those put forth.

Third—The committee was addressed in opposition to the division by Prof. James W. McLane, on behalf of the College of Physicians and Surgeons of New York, and Dr. Daniel Lewis, president of the State Board of Health.

Fourth—These arguments may be epitomised as follows: Dr. McLANE asseverated that the function of the college is one thing and that of the state quite another; that the first function of the state is to exclude unqualified men from entering upon the study of medicine; that all found qualified are turned over to a medical school to be educated in medicine; that the college is educating the man, and if it judges him to be competent it grants him a diploma; that the state now inspects him, and if found qualified it licenses him to practise medicine; that the examining board is not an educational body but a licensing body; that if a division is made, many men will be examined unnecessarily, because many men after the first or second year drop out and do not come up for final examination; that he doubts if there are many excluded by the state examinations who ought to enter the practice of medicine; that if incompetent persons slip through the schools they ought to be caught in the state net; that the object of this law was to raise the standard of medical education: that this movement is not in the direction of raising the standard; that the argument that the examination as at present conducted interferes with a graded course is not tenable; that the colleges may pursue the course they find best, but the state is to decide whether a man is competent to practise, which can only be determined by final examination; that the law, as at present administered, is working well; that it has stimulated the schools to teach the men well, as each feels a personal pride in having their graduates pass the state board; and, finally, that it is better for all imperfectly equipped men in elementary branches to be excluded from the profession of medicine.

Dr. LEWIS stated that he had been familiar with the medical practice laws from their inception; that Prof. McLane had correctly interpreted the motives of those who had drafted the statutes, wherein a licensing body and not an educational one was aimed at—one that should test the qualifications of a man for the practice of medicine after graduation: that it was desired to make it simple and effective, complications being avoided; that the fact that it has been successful down to the present time is a potent reason why it should not be modified; that efforts are made annually to annul its provisions that have only been thwarted by resisting all proposed amendments; that it is not safe

to undertake the modification of a satisfactory law ; that it would be impossible to make the proposed division, or graded examination, apply to graduates from the other states and countries ; that it could not be made to apply to those going out of the state to practise ; that complications in making this change would be almost endless, and that the general profession is satisfied with the present law and the manner of its execution. Dr. Lewis was of the opinion that a change could be made in the direction named, should it be deemed advisable, without further legislation.

Fifth—Communications were read from Dr. John Cronyn, Buffalo, president of Niagara University, and others, but these did not advance any arguments not already presented by the speakers who addressed the committee.

CONCLUSIONS.

Your committee, after mature deliberation and a careful consideration of all the arguments presented, believes that it would be unwise to make any change or modification in the present methods of conducting the state examination for license to practise medicine for the following reasons :

1. The operations of the law are well understood as at present administered, both by the colleges and the students. It has taken all this time to get the machinery in thorough working order and to familiarise all concerned with its duties and requirements. To disrupt its operations by such a radical change as is proposed would be prejudicial to the best interests of higher medical education.

2. The majority of the colleges in the state, as well as physicians who are not teachers, appear to be opposed to such a change ; or, to state this in another way, out of twelve undergraduate medical colleges but four advocate a change either in person or by letter. Moreover, so far as our knowledge extends, the entire profession, independent of college teachers, is not in favor of any change.

3. The functions of the state may be exercised to prevent unqualified men—namely, those deficient in preliminaries—from beginning the study of medicine, and it also may exercise its functions to prevent improperly qualified graduates from practising medicine by withholding its license after due examination, but it cannot properly exercise any control over the student between his entrance examination and his examination for state license. In other words, it is unlawful, if not unconstitutional, for the state to interfere with a student after he has entered college until he finally comes up for state license. In still other phraseology, the state may determine the preliminaries, but its medical examination is a post-graduate and not an under-graduate test.

4. Finally, your committee believes that in the interest of simplicity, fairness and higher medical education, the present method

should prevail. We are in great doubt as to the legality of dividing the examinations without amending the law, and we think it would not be prudent to invoke legislation on the subject.

Respectfully submitted,

GEORGE R. FOWLER, M. D.
WILLIAM WARREN POTTER, M. D.
MAURICE J. LEWI, M. D.

OPHTHALMOLOGY.

CONDUCTED BY ALVIN A. HUBBELL, M. D.

TREATMENT OF CONVERGENT STRABISMUS.

PRIESTLY SMITH, of Birmingham, in the Ingleby Lectures for 1896, (*British Medical Journal*, June 27, 1896,) gives his views of the treatment of strabismus as follows :

Will glasses cure the squint ? If there be a considerable hypermetropia in the straight eye, glasses will probably diminish the deviation whatever be the condition of the deviating eye ; but if this latter fail to right itself when the fellow-eye is covered, they will not effect a real cure. The more promising cases are those in which the squint alternates between the two eyes, the most promising those in which it appears and disappears periodically. In a case of this kind, if we find that atropine vanishes it entirely for the time being, we may be almost sure that glasses will remove it permanently. But the glasses must be correct, neutralising astigmatism as well as hypermetropia in both eyes ; they must "fit" so that the child looks through them and not over them, and they must be worn constantly from morning till night. Failure frequently depends on lack of perseverance. The parents want a speedy cure ; not getting it, they allow the child to lay aside the glasses after a few weeks or months or fail to renew them when he breaks them. Sometimes they complain, illogically, that "the glasses are no good, for the squint returns the moment they are taken off." In reality this is the strongest proof of their value. But we must not expect too much from glasses ; they can lessen the excess of convergence and they can sharpen the retinal pictures, but they cannot create the visual perceptions and motor impulses which are essential to the acquirement of binocular vision.

What else can be done ? The squinting eye, or rather the perceptions and impulses which ought to control its movements, can, to some extent at least, be educated. The process will be difficult

or impossible according to the duration of the previous neglect. The patient must be taught, first, to perceive the impressions belonging to the squinting eye ; then to perceive them simultaneously with those of the fellow-eye—that is, to see double ; next, to make the effort which is necessary to unite the double images ; and lastly, to form those judgments of distance and perspective which perfect binocular vision gives. Cures absolutely complete in this last respect, as proved by Hering's drop test, are rare but not unknown. For this process of teaching several means are at our disposal. We may cause the patient to use the squinting eye exclusively by covering the other ; we may induce him to give it preference, when both are open, by partially disabling the other with atropine ; we may teach him to notice both pictures simultaneously and ultimately to blend them by means of persistent practice with the stereoscope, differentiating them at first by colored glasses and approximating them by prisms ; we may facilitate the process at any stage by bringing the eye into better position by means of tenotomy.

When is it best to operate ? No operation should be done until the nature of the squint has been thoroughly investigated and until efforts have been made to minimise the deviation and to sharpen the visual perceptions by glasses and by regulated practice. When these measures are inapplicable, or have ceased to give progressive benefit, operation is in place and is hardly contra-indicated by age in either direction ; but the younger the child the more important it is to do too little rather than too much. Full correction of a squint by tenotomy in very early life may give over-correction later on. Partial correction by the first tenotomy, an interval with regulated exercise, and then a similar tenotomy on the fellow-eye in case of need are better practice. Confirmed strabismus often diminishes in degree as time goes on ; hence the too common idea that time alone will often cure a squint and the advice not seldom given to “ wait and see.” For the squinting eye this too often means waiting and not seeing. Time alone may lessen the disfigurement but will not remove the disability. Binocular vision is not recovered in this way.

ON THE PREPARATION OF MACROSCOPICAL EYE SPECIMENS.

DR. WILLIAM CAMPBELL POSEY, of Philadelphia, (*Annals of Ophthalmology and Otology*, January, 1896,) in preparing mac-

roscopical eye specimens, uses a simple glass jar made by the Fox Optical Co. and capped with a plano-convex lens. A small disc of opaque glass is used to seal the jar and forms an excellent background for the specimen.

The preparation of the eye for mounting is briefly as follows : The entire globe is hardened in Muller's fluid for at least three weeks. It is then placed in a freezing mixture of salt and ice, care being taken to envelop the eye in oiled silk to prevent any of the fluid from the freezing mixture coming in contact with it. After the globe is thoroughly hardened it is divided by a bold stroke of a knife,—that form of knife used in sectioning the brain being the best adapted for this purpose. One-half of the eye is reserved for microscopical examination, whilst that which is to be mounted macroscopically is placed in water to thaw out and to rid it of the excess of Muller's fluid. To remove the stain caused by the fluid more effectually the section of eye is placed in a 5 per cent. solution of chloral hydrate, care being taken to change the solution daily until the section is no longer discolored. As the globe would shrink were it placed in the mounting fluid at this stage, it is first subjected to solutions of glycerine and water of different strengths. The eye is then ready for mounting.

The preparation of the medium used for this purpose is the only difficult stage in the entire process. It is quite a painstaking task to obtain a clear solution, and one frequently consumes three or four hours in the process, to be rewarded by a product which is too cloudy for use. The solution is best prepared as follows : One ounce (about twelve to fourteen strips) of the best French gelatin (Coignet & Co., Paris,) is cut into small bits by a pair of scissors ; eight ounces of water is then added to the gelatin and the mass set aside in a beaker to swell. The whites of two eggs are then taken, and to better clear the mixture later on, the shells of the eggs are cut into fine pieces and thoroughly mixed with the albumen. The gelatin is now melted with a gentle heat, a few drops of carbolic acid being added as an antiseptic. As soon as it begins to boil, the albumen is added and the whole mass stirred with a glass rod. As the mixture is very rapidly scorched, constant attention must be given it until the fluid is quite clear below and a thick scum has gathered upon the top. The mixture is now filtered through flannel, or preferably through a steam filter, and the product, which should be quite clear, is collected in a jar which has been made perfectly clean. Eight ounces of glycerin is then

added. After the glycerin and jelly have been thoroughly mixed one of the glass cells is two-thirds filled with the solution and the section of eye floated upon it. The globe is then seized at the equator with a pair of forceps and gently rolled over in such a way that no air bubbles are permitted to get into its concavity. Should any bubbles, however, get in they can be readily removed by sucking them out through a glass tube. A hand-mirror is now placed under the specimen and a good view is obtained of the position of the eye and of any air bubbles which may have escaped detection from above. The globe is then kept from rising in the fluid by placing over it a bit of cardboard perforated by a pin.

The jar should never be entirely filled with the solution, for it is always better to leave an air space between it and the opaque disc, which is cemented on after the jelly has thoroughly set.

LIGHT—THE OINTMENT OF THE YELLOW OXIDE OF MERCURY—AND
THE OINTMENT POTS IN COMMON USE.

DR. HOLTH, of Norway, (*Archives of Ophthalmology*, October, 1895,) calls attention to the fact that the yellow oxide of mercury ointment decomposes very readily. He says :

It is a familiar fact that this ointment decomposes quite readily ; a change takes place after a short period, sometimes at the end of a few days. As a result, there is grayish discoloration, which, becoming darker, finally changes to black. Altered in this manner, the ointment not only suffers in appearance, but, though possibly harmless, it is less potent and may even be entirely useless. If its use be limited to a few days, or if it be freshly prepared every day for use in clinics, there will be practically no decomposition ; but as ordinarily prescribed to be applied at home for a considerable period of time this change is an objectionable feature.

The writer conducted a series of experiments for the purpose of ascertaining the cause of this decomposition. His results agree with the statements found in text-books of chemistry, that the red and yellow oxides of mercury are reduced through the influence of light. They justify the following conclusions :

1. Decomposition of the ointment of the yellow oxide of mercury, showing itself in grayish discoloration, is not due to chemical changes produced in the ointment base, but is dependent entirely upon the reducing effect of light passing through the more or less transparent walls of the ointment pots in ordinary use. Violet light probably exerts the most effect in this direction.

2. This decomposition is not influenced by temperatures between 0° and 30° C.
 3. It is not caused by access of air.
 4. Any ointment pot may be used if kept in a dark place.
 5. The use of absolute opaque pots provided with similar covers is the most practical way of avoiding decomposition.
-

EPHEDRENE HYDROCHLORAT AS A MYDRIATIC.

DR. GEORGE F. SUKER, of Toledo, Ohio, (*Annals of Ophthalmology and Otology*, January, 1896,) writes that ephedrene is an alkaloid from the leaves of *ephedra vulgaris* or *ephedra distachya*, and not to be confounded with ephedren, which latter is an amorphous compound obtained in connection with glucose during the decomposition of the glucoside present in *ephedra antisiphilitica*. This ephedrene is considered the active principle of the plant. Kindly note the difference in the spelling of the two—ephedren and ephedrene.

The alkaloid ephedrene is not amorphous, but a colorless stable crystal, melting at 410° F. (210° C.), soluble in four parts of water, readily so in alcohol, practically insoluble in ether. The hydrochlorid, in which form the base is chiefly used, appears in colorless needles, very readily soluble in water.

It was Mr. Kinnosuke Miura, of Tokio, who first found the aqueous solution of ephedrene. The clinical researches of Kinnosuke Miura first demonstrated the mydriatic properties of ephedrene hydrochlorat when applied externally in frogs and mammals, as well as evincing its lethal effect when a sufficient quantity was taken internally.

It causes death by the arrest of the heart's action and respiration. He reported a series of eighteen cases of the use of a 10 per cent. solution, carefully noticing its mydriatic properties. In each and every case he noticed a uniformity of action as well as a good reliability. The suspension of accommodation was not perceptible. In each case one or two drops of a 10 per cent. solution were instilled into the conjunctival sac at a few moments' interval, and a complete mydriasis was obtained in ten to twenty minutes.

Of late, Dr. Groenouew and Dr. Geppert have made extended clinical experiments, and these confirm fully those of Miura. However, they use the ephedrene in connection with the homatro-

pin. They say that the addition of homatropin greatly increases the intensity of the ephedrene, yet not influencing its transitory effects. The following is the formula which they employ: Ephedene hydrochloride, 1.0; homatropin hydrobromide, 0.01; aqua distilled, 10.0.

CONTRIBUTIONS TO THE PATHOLOGICAL ANATOMY AND BACTERIOLOGY
OF SUPPURATIVE KERATITIS IN HUMAN BEINGS.

UNTHOFF and AXENFELD (*Archiv. f. Ophth., Abth. I.*, 1896; *Annals of Ophthalmology and Otology*, April, 1896,) contribute an article of 130 pages, going extensively into the pathology and describing twenty-four cases. These include superficial and perforating ulcers, hypopyon keratitis, keratomalacia, panophthalmitis, and the like, of local origin or appearing in the course of general diseases from different forms of infection. There were 35 cases of typical *ulcus corneæ serpens*, 10 cases of hypopyon, 1 case of keratomycosis *aspergillina*, 2 cases of beginning panophthalmitis with corneal abscess. In these there were found the Frankel-Weichselbaum diplococcus (pneumococcus) in 26 cases, of which 4 cases were typical *ulcus corneæ serpens* and 2 cases beginning panophthalmitis; pneumococci at the same time with other microorganisms in 7 cases; 5 of these were typical *ulcus serpens*; no pneumococci but other microorganisms in 13 cases; 4 cases were typical *ulcus serpens*; negative bacteriological findings in 4 cases, 2 of these *ulcus serpens*. There was 1 case of keratomycosis *aspergillina*, arising from dirt being thrown in the eye, causing a typical hypopyon keratitis. The eye was not enucleated although bacteriologic examination of the pus was made. Experimental inoculation of animal corneæ was done in all cases and results noted. The literature is extensively quoted.

FORMIC ALDEHYDE IN OPHTHALMIC PRACTICE.

JAMES MACKENZIE DAVIDSON, M. B., C. M., Aberdeen (*British Med. Journal*, January 18, 1896).

The writer cites a number of cases of corneal abrasions and ulcers, in two instances with hypopyon, which were treated with a solution of formalin 1 to 2,000 or 3,000 with most favorable results.

The results which I have obtained with this substance in the treat-

ment of some diseases of the eye have been so notable that I am induced to publish this short article upon its use. The preparation I am using is Shering's formalin (which consists of 40 per cent. formic aldehyde in water, forming a stable solution, if kept in a well-stoppered bottle). One part of formalin in 2,000 or 3,000 of water is the strength which I find most serviceable. When I tried it first in hypopyon ulcers it was dropped into the affected eye three or four times daily and it seemed to be of very little use, but on applying it freely every hour I have never seen anything act so effectually in these cases.

ETIOLOGY OF PTERYGIUM.

SCHULEK (*Ungar. Beitr. z. Augenheilk.*, I., 1895; *Annals of Ophthalmology and Otology*, April, 1896,) in two articles shows that pterygia arise from irritating causes, such as intense light or temperature and dust, and endeavors to show that the irritating qualities of the ultra violet rays of light (which exist in white light) are an important factor. Most foreign bodies, such as dust particles, remain longest upon the nasal side of the conjunctiva. Pterygia start from infolding of the conjunctiva upon small erosions at the corneal limbus. Continued irritation causes growth. Foreign bodies are frequently found at the point of the pterygium. Pingueculæ frequently become transformed into pterygium. The ultra violet rays affect the cornea and conjunctiva by photochemical irritation.

EFFERVESCENT LITHIA TABLETS.—The varying and uncertain composition of natural lithia waters precludes an intelligent medical use. If the dose can even be approximated, it is altogether too small in the volume of water required to contain it to be available, practically. Not so, however, with the lithia tablet—the effervescent citrate of lithia tablet—as made by Messrs. John Wyeth & Brother, chemists, Philadelphia, in each of which there is an exactly definite proportion of the salt, an absolute uniformity of dose, with therapeutic result assured. These tablets, which have a widely extended popularity, and such unreserved endorsement of the medical profession, present evidences of superiority which explain the preference everywhere accorded them. The tablets dissolve with free, sparkling effervescence, affording a bright, clear solution and an agreeable drink.

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EDITORS:

THOMAS LOTHROP, M. D. - WM. WARREN POTTER, M. D.

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No. 1.

AMERICAN PUBLIC HEALTH ASSOCIATION.

IT IS now becoming pretty generally known through announcements in the medical journals that the American Public Health Association will hold its twenty-fourth annual meeting at Buffalo, Tuesday, Wednesday, Thursday and Friday, September 15, 16, 17 and 18, 1896. This event will be of sufficient importance to justify somewhat extended comment at our hands at this time.

This association was organised, in 1872, by a few eminent sanitarians, who foresaw the importance of such a society that would bring within the fold of its membership the ablest men interested in public health and the prevention of disease. The founders included the names of Drs. Stephen Smith, Elisha Harris, Francis Bacon, Christopher C. Cox and John H. Rauch.

The marvelous growth of the association from a score or more of public-spirited men in 1872, to a membership of several thousand in 1896, whose residences are scattered over every nook and cranny of the United States, the Dominion of Canada and the Republic of Mexico, is indicative of its importance and the confidence it has inspired among the people. It has held meetings in every prominent city in these three several countries, and it has discussed almost every question pertaining to public health and preventive medicine. Nor is its membership limited, as many suppose, to the profession of medicine. In its list of membership may be found the names of lawyers, ministers, civil and sanitary engineers, health officers, teachers, plumbers, merchants and physicians; indeed, almost every profession, as well as many of the industries, is represented in its work. The only qualifications required for membership are good professional or business stand-

ing, an interest in hygiene and public sanitation, and the indorsement of two members of the association. The membership fee is \$5.00 a year.

The publications of the association constitute in themselves a library upon sanitation, and are alone worth more than the cost of membership. Last year the association commenced to publish its transactions in the form of a quarterly journal, that is as handsome a specimen of the printing art as we have seen in many a day, and which may be bound at the end of each year into a book uniform with the preceding volumes. So much for the association itself.

Now let us speak of the Buffalo meeting. Of late it has become quite common for organisations, civic, professional and military, to appoint their annual conventions in Buffalo. The natural advantages of this city growing out of its geographical location, its great and ever-increasing railway facilities, its opportunities for pleasure by land and water, its growing commercial importance, its splendid hotel accommodations, its beautiful streets paved with asphaltum, lined by tall shade trees and skirted with beautiful residences, all conspire to make it one of the most attractive convention cities in the United States. Moreover, to all of this should be added the business enterprise and liberality of its large-hearted and public-spirited citizens, who are equally famous for their social attractiveness, which latter is chiefly attributable to the beauty and refinement of its women.

Many opportunities have been offered of late to test the liberality of our people, but, in our view, nothing has yet been presented with more direct claims upon their hearts and purses than the entertainment of the American Public Health Association during its approaching meeting. It is true we have entertained the educators and the press league and are about to receive the scientists; but neither education, nor science, nor newspaper can prove attractive to any human being in the absence of health. Of what avail is learning without the necessary health to apply it? The highest function of the modern physician is exercised in the prevention of disease. The state has recognised this in the establishment of boards of health all over the land, in the creation of medical examining boards in almost every commonwealth, and in the enactment of other laws that have for their object the protection and preservation of the health of its citizens.

Here now comes the American Public Health Association, whose object is to aid the state in carrying out the above-named

purposes by studying and evolving the best method to gain the ends sought, and to economise the public outlay in developing the highest order of state and municipal sanitation. It is true it costs money to entertain this association, but the expenditure is an investment that yields the largest return of any known to us. We feel sure that every intelligent man and woman in Buffalo will recognise the truth of this statement, and that every one appealed to by the chairman of the local finance committee, Dr. Henry R. Hopkins, will respond with a liberality consistent with the cause and his own ability.

In another column we publish an excerpt from the *Buffalo Evening News*, showing the sanitary status of Buffalo, that we commend to the careful reading of everyone whose eye falls upon it. It speaks volumes for the management of the health department of our city, and is a truthful indorsement of the ability with which Dr. Ernest Wende has administered its affairs. Dr. Wende is chairman of the local committee of arrangements of the American Public Health Association, and as such is the officer chiefly responsible for its proper entertainment in this city next September. The executive committee, consisting of the chairmen of the several subcommittees and others, holds its meetings every Friday afternoon, from 4 to 5 o'clock, at the Ellicott Club. It is important that each member should attend this meeting with regularity.

It is proposed to entertain the association at Ellicott Square during its business sessions and where exhibit rooms will be provided by the local committee for the exhibition of hygienic and sanitary appliances. This exhibition will be under the direction of Dr. B. H. Daggett, chairman, to whom all applications for space and other information on the subject should be made.

In conclusion, we repeat that the importance of this meeting cannot be overestimated. This remark applies not to physicians alone but to business men in a larger sense. They are the many, physicians are few. The latter are quite willing to do the work and pay their money. We only ask the former to give us each in accordance with his own ability, remembering that he is paying to advance public health interests and reduce private doctors' bills. We feel assured that this will be the most important meeting ever held by this association and that it will be entertained by the citizens of Buffalo in a manner commensurate with hospitable dignity.

TOPICS OF THE MONTH.

THE Buffalo Fresh Air Mission Hospital, at Athol Springs, was opened July 1, 1896, and will remain open until September for the reception and treatment of young children suffering from cholera infantum and other acute diarrheal diseases. The hospital is on the shore of Lake Erie, ten miles from Buffalo, and is reached by frequent trains on either the Lake Shore or W. N. Y. & P. R. R. Anyone who wishes to send a patient should telephone either to one of the staff physicians or to the Fitch Institute. During the month of July the hospital was in charge of Dr. DeWitt H. Sherman, and during August it will be under the charge of Dr. Irving M. Snow, who will make daily visits from Buffalo. The resident physicians at the hospital are Dr. Nairn and Dr. Mesmer, and a corps of trained nurses is under the superintendence of Miss King, who has been at the hospital for the past two summers. All physicians are familiar with the beneficial effects of absolutely fresh air and correct diet for the diseases treated at this hospital. The physicians of Buffalo are urged to interest themselves in securing the benefits of this charity for those who need them. No charge is made for either mothers or children, but the mothers will be expected to aid to some extent in the care of the building. We commend this deserving charity to the attention of the citizens of Buffalo, whom we hope will respond with befitting liberality to its appeals for aid.

THE substitution of the preparation of one manufacturing chemist for that of another by careless or unscrupulous druggists, is an evil that ought to be severely dealt with when the offense is detected, and it is one in which every physician is interested in correcting. When a prescription druggist violates the first ethical principles, either by substituting or counter-prescribing, he is unworthy of the confidence of the medical profession or of the people who patronise him.

The *Pharmaceutical Era* has lately discussed this question in a most dispassionate manner in connection with a complaint made by Fairchild Bros. & Foster, of New York, that their essence of pepsin has been substituted for the preparations of other manufacturers so frequently that forbearance now has ceased to be a virtue. They present the evidence in a manner too strong to admit of doubt. The *Era*, in an editorial comment on the subject, says :

Fairchild Bros. & Foster, by their action, place the charge where it belongs, and this cannot fail to benefit honest dealers. Every honest druggist owes it to himself and his profession to speak plainly on this subject. He should adopt the most strict rules for his own establishment; improve every opportunity to condemn the practice of substituting and see that resolutions to this effect are passed by his local, state and national associations. Each druggist should make it a point to give his physicians and his customers to understand that when a prescription comes into his establishment, it is filled with exactly what it calls for. There can be no middle ground, no compromise, no question on this point.

The importance of this subject to every physician, patient and prescription druggist, cannot easily be overestimated; and all these three groups of parties in interest must unite to prevent such practices in future, and to punish the offender whenever and wherever detected and against whomsoever it may be made.

THE so-called Christian science craze, a fad that every intelligent man and woman in civilised communities discountenances and only the weak, silly or infamous give support, has received proper chastisement at the hands of the coroner's jury in the Dominion of Canada. The following newspaper dispatch from the *Buffalo Morning Express* of June 30, 1896, tells the story:

Adelaide Maria Goodson, while under the treatment of Mrs. Beer, a Christian scientist, died on June 15th and was buried. Subsequently the remains were exhumed and an inquest held, at which it was shown that the girl had died of diphtheria and had not received any medical treatment. Mrs. Beer prayed silently "against the belief in disease," taking a dollar a prayer, and the patient died. The following verdict was rendered tonight: "That Mrs. Mercy Helen Beer, David Goodson and Mrs. Maria Goodson, on the 15th day of June, 1896, in the city of Toronto, county of York, did feloniously and unlawfully neglect, and thereby kill and slay Adelaide Maria Goodson, against the peace of our lady, the Queen, her Crown and dignity."

We could wish that every coroner's inquest would yield as tangible results and couch its verdicts in as clear and unmistakable English.

DR. JAMES F. W. ROSS, of Toronto, suggests a new method in dealing with rupture of the puerperal uterus. He bases this suggestion on a case of traumatic rupture of the uterus at the fourth

month lately seen by him in consultation and on which he operated. It appears that through some manipulation to deliver the secundines a rent was made in the uterus which was undiscovered at the time. Some days later when the case was seen by Dr. Ross he found the condition of the patient extreme and advised immediate operation. He opened the abdomen and found the uterus with a rent through its posterior wall reaching to the fundus. The tissues were too friable to suture, so he cleaned out the cavity and made through-and-through drainage with a rope of iodoform gauze. A drainage-tube was introduced into the abdominal wound through which the gauze was drawn down through the uterine rent into the vagina.

The woman made an excellent recovery, and Dr. Ross thinks this method of dealing with ruptured uterus is adequate in cases unsuitable for suture. He is not aware that anyone has before called the attention of the profession to the method here proposed and successfully employed in the case referred to.

THERE is no stronger proof of the value of an efficient health department than the returns Buffalo has received for the money it has invested in establishing hers on a sound basis. Hear the *Buffalo Evening News* on the subject :

BUFFALO'S SANITARY TRIUMPH.

The *New York Times*, under the above head, calls attention to the death-rate of this city for the first six months of this year, which was reported at only 11.67 per 1,000, and says: We could scarcely believe that the figures had been transmitted accurately, but an examination of the news columns of our Buffalo contemporaries proves that there was no error.

Buffalo has astonished the state with the result of judiciously applied sanitary efforts. These efforts, feeble at first, gained strength as the methods introduced showed results. Prejudice against new and unfamiliar ways was met with. Professional jealousies had to be overcome. Old systems had to be rooted out. Scientific applications, puzzling to the nonprofessional lookers-on, are never popular until their efficacy has been shown in well-defined results.

So thorough has the work been performed that Buffalo's sanitary triumph is now attracting the attention of the press of the state and creating profound astonishment among scientific men in

the larger cities of the country. The *New York Times*, in the course of its remarks, dwells upon one or two features of the system upon which the health department depends, as follows :

We do not wish to give undue prominence to the precautions relating to the milk supply, but they should not be overlooked. Buffalo is one of the few cities in the world which have undertaken to prevent the sale of milk from "consumptive" cows to their inhabitants. It requires the dairyman, whether his herd be kept in or out of the city, to produce a certificate showing that his cows are not tuberculous. We infer, of course, that this involves the use of the tuberculin test. Other infectious diseases, as well as tuberculosis, are spread abroad by the agency of the milk supply when the milkman's water supply or premises are infected. It will be observed that in Buffalo the premises of all milk dealers are inspected, with reference to this danger to which consumers are exposed, and that the record of cases of illness along the delivery routes must give timely warning as to local epidemics of typhoid or scarlet fever caused by the sale of milk infected with the germs of these diseases.

These safeguards, which should be used in every city, have undoubtedly affected the death-rate in Buffalo. We do not desire to overestimate the importance of them as compared with other sanitary precautions, but it may be pointed out that such care with respect to the milk supply and water supply—exercised as it is in only a few cities—indicates clearly an exceptionally enlightened and effective administration in all branches of municipal and sanitary work. We may be sure that a health department which displays so plainly its progressive spirit has neglected none of the other sanitary precautions with which the people of a majority of civilised cities are familiar.

The people and the government of Buffalo may justly be proud of this very remarkable death-rate, which we think is not equaled in any other city of the world. It is apparent that much credit for this extraordinary showing is due to the municipal health department, but the most enlightened and energetic sanitary officers must have the cordial support of the people if their efforts are to be successful. Such support must have been given in Buffalo to Health Commissioner Wende.

Personal.

DR. L. S. McMURTRY, of Louisville, Ky., and his daughter, Marie-Louise, were recently the guests of Dr. and Mrs. William Warren Potter, of Franklin street, Buffalo. Dr. McMurtry sailed for Europe on La Gascogne, July 25, 1896, and will attend the Periodic Congress of Gynecology and Obstetrics, at Geneva. He is the

official delegate of the American Association of Obstetricians and Gynecologists to the congress, and also is an accredited representative of the government of the United States to the same. He will return immediately on adjournment of the congress, which is to be held the first week in September.

DR. JOSEPH M. MATHEWS, of Louisville, was recently reëlected president of the Kentucky state board of health. Dr. J. N. McCormack, of Bowling Green, was again chosen secretary. These capable and efficient officers should be retained in their present positions as long as they will consent to hold them.

DR. DANIEL LEWIS has been elected for the second time president of the New York state board of health. This is a fitting recognition of the ability with which Dr. Lewis has administered the affairs pertaining to his office, and it is to be hoped he will be retained in it for many years.

DR. GEORGE BEN JOHNSTON, of Richmond, Va., was elected a Fellow of the American Surgical Association at its recent meeting, held at Detroit, Mich. This is a distinguished honor worthily bestowed. The association is a famous one and Dr. Johnston is an eminent surgeon.

DR. ALBERT L. GIBON, of New York, medical director, U. S. Navy, (commodore, retired,) was elected president of the Association of Military Surgeons of the United States at its recent annual meeting at Philadelphia. The next annual meeting is appointed to be held at Columbus, O.

DR. WILLIAM C. KRAUSS, of Buffalo, has been designated as local correspondent of the *Cleveland Journal of Medicine*. If our Cleveland contemporary should have occasion to print something from the pen of Dr. Krauss, it will be material of value to the profession.

DR. HENRY GIBBONS, Jr., of San Francisco, was elected president of the Medical Society of the State of California at its recent annual meeting. We predict one of the most successful years of the society under the able administration of Dr. Gibbons.

DR. JAMES F. W. ROSS, of Toronto, will deliver the address on obstetrics and gynecology at the annual meeting of the Canadian Medical Association, to be held at Montreal, August 26, 27 and 28, 1896.

DR. THOMAS BAGLEY, of Buffalo, who recently visited Europe, has returned and resumed the practice of his profession.

Obituary.

DR. THOMAS HUN, of Albany, died at his residence in that city June 23, 1896. Dr. Hun had been engaged in medical practice for fifty-seven years and was almost the last representative of the old régime. By this we do not mean that he was antiquated in his methods of medical practice, but that in his courtliness of manner, sweetness of disposition and temper, exalted character and scholarly bearing, he represented an element in the medical profession that, sadly enough, seems rapidly fading away.

The Medical Society of the County of Albany, the faculty of Albany Medical College, the medical staff of St. Peter's, Albany, and the Child's hospitals, the board of trustees of Corning Foundation for Christian Work in the Diocese of Albany, the dean and chapter of the Cathedral of All Saints, the trustees of Albany Academy and the regents of the University all have passed appropriate resolutions or memorials, that for beauty of diction and simplicity of style we have rarely seen equaled. We wish we could reproduce them all here, but that is impossible. They may be found in the *Albany Medical Annals* for July, 1896, supplemented by a brief but fitting editorial notice. They all constitute a most lovely tribute to the character and memory of a lovable man.

Requiescat in pace

Society Meetings.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

THE ninth annual meeting of the American Association of Obstetricians and Gynecologists will be held at the Hotel Jefferson, Richmond, Va., Tuesday, Wednesday and Thursday, September 22, 23 and 24, 1896.

The proprietors of the "Jefferson" offer special rates to the Fellows of the association, their families and guests, as well as to any physicians who come to attend the meeting. It is confidently expected that the railways will offer transportation at a uniform rate of a fare and a third on the certificate plan to all in attendance. Let all obtain certificates from their local ticket agents, or from the nearest point where certificates are granted.

OUTLINE PROGRAM.

The association will meet in executive session with closed doors on Tuesday, September 22d, at 9.30 o'clock A. M., for the election of new Fellows. The open session for the reading of papers will begin at 10 o'clock A. M. Recess for luncheon at 1 o'clock P. M. Afternoon session at 3 o'clock P. M. An evening session will be held Tuesday at 8 o'clock.

Morning session will begin Wednesday at 9.30 o'clock for the reading of scientific papers. Recess at 1 o'clock. Afternoon session at 3 o'clock. Adjournment at 5 o'clock. Executive session at 6.30 o'clock. Annual dinner at 8 o'clock P. M.

Thursday morning the session will begin at 10 o'clock. Recess at 1 o'clock. Afternoon session at 3 o'clock. Final adjournment at 5 o'clock. A full attendance is specially requested at the final session.

PAPERS PROMISED.

NOTE.—No attempt is made to arrange papers in the order in which they are to be read. That will be done in the permanent program.

1. Principles and progress in gynecology. President's address. Joseph Price, Philadelphia.
2. Vaginal hysterectomy by the clamp method, Sherwood Dunn, Los Angeles.
3. Further experience with appendicitis, A. Vander Veer, Albany.
4. Relation of malignant disease of the adnexa to primary invasion of the uterus, A. P. Clarke, Cambridge.
5. Treatment of puerperal septicemia, H. W. Longyear, Detroit.
6. Treatment of posterior presentation of the vertex, E. P. Bernardy, Philadelphia.
7. Relation of local visceral disorders to the delusions and hallucinations of the insane, W. P. Manton, Detroit.
8. Differential diagnosis of hemorrhage, shock and sepsis, Eugene Boise, Grand Rapids.
9. Movable kidney: local and remote results, A. H. Cordier, Kansas City.
10. Pathology and indications for active surgical treatment in contusions of the abdomen, W. G. Macdonald, Albany.
11. Some

causes of insanity in women, George H. Rohé, Sykesville. 12. Subject to be announced, John Milton Duff, Pittsburg. 13. Shall hysterectomy be performed in inflammatory diseases of the appendages? L. H. Dunning, Indianapolis. 14. Subject to be announced, Rufus B. Hall, Cincinnati. 15. Subject to be announced, Geo. Ben Johnston, Richmond. 16. Dynamic ileus: with report of cases, J. W. Long, Richmond. 17. Faradic treatment of uterine inertia and subinvolution, Charles Stover, Amsterdam. 18. A plea for absorbable ligatures, H. E. Hayd, Buffalo. 19. Treatment of the stump, J. F. Baldwin, Columbus. 20. Limitations in the teaching of obstetrics and gynecology as determined by state medical examining boards, William Warren Potter, Buffalo. 21. Subject to be announced, Walter B. Chase, Brooklyn. 22. (a) The philosophy of drainage; (b) Treatment of the pedicle in hysterectomy or hysteromyomectomy in the abdominal method, Geo. F. Hulbert, St. Louis. 23. Removal of the uterine appendages for epilepsy and insanity; a plea for its more general adoption, D. Tod Gilliam, Columbus. 24. Albuminuria of pregnancy, A. Fr. Eklund, Stockholm. 25. Subject to be announced, Lawson Tait, Birmingham. 26. Unnecessary and unnatural fixation of the uterus and its results, James F. W. Ross, Toronto. 27. Sarcoma of the Urethra, Charles A. L. Reed, Cincinnati. 28. Appendicitis as a complication in suppurative inflammation of the uterine appendages, L. S. McMurry, Louisville. 29. Gunshot wounds of the abdomen with the new gun, J. D. Griffith, Kansas City. 30. Subject to be announced, Walter B. Dorsett, St. Louis. 31. Subject to be announced, W. E. B. Davis, Birmingham. 32. Subject to be announced, E. Arnold Praeger, Los Angeles. 33. Tubo-ovarian cysts with interesting cases, A. Goldspohn, Chicago. 34. Obstruction of the bowels following abdominal section, Geo. S. Peck, Youngstown. 35. Memorial of Dr. Hiram Corson, Traill Green, Easton.

Correspondence is pending concerning additional papers. All titles must be offered before August 25th, when the permanent program goes to press. The executive council directs attention to the following by-law.

PAPERS.

VI. The titles of all papers to be read at any annual meeting shall be furnished to the secretary *not later* than one month before the first day of the meeting.

No paper shall be read before the association that has already been published or that has been read before any other body.

Not more than thirty minutes shall be occupied in reading any paper before the association.

Abstracts of all papers read should be furnished to the secretary at the meeting.

All papers read before the Association shall become its sole property if accepted for publication; and the Executive Council may decline to publish any paper *not handed to the secretary complete* before the final adjournment of the annual meeting.

Dr. Geo. Ben Johnston, 407 E. Grace street, Richmond, Va., is chairman of the committee of arrangements, who should be addressed in regard to hotel accommodations and railway fares.

JOSEPH PRICE, *President*.

WILLIAM WARREN POTTER, *Secretary*.

THE twenty-fourth annual meeting of the American Public Health Association will be held at Buffalo, N. Y., September 15-18, 1896. The Executive Committee has selected the following topics for consideration: 1. The pollution of water supplies. 2. The disposal of garbage and refuse. 3. Animal diseases and animal food. 4. The nomenclature of diseases and forms of statistics. 5. Protective inoculations in infectious diseases. 6. National health legislation. 7. The cause and prevention of diphtheria. 8. Causes and prevention of infant mortality. 9. Car sanitation. 10. The prevention of the spread of yellow fever. 11. Steamship and steamboat sanitation. 12. The transportation and disposal of the dead. 13. The use of alcoholic drinks from a sanitary standpoint. 14. The centennial of vaccination. 15. The relation of forestry to public health. 16. Transportation of diseased tissues by mail. 17. River conservancy boards of supervision. Upon all the above subjects special committees have been appointed. Papers will be received upon other sanitary and hygienic subjects also.

At the date of this announcement the indications are that the next annual meeting will be one of the largest and most successful in the history of the Association. The local Committee of Arrangements has already begun active preparations for the meeting, and it will be materially aided and assisted by the State Board of Health of New York.

An announcement will be made in ample time before the meeting giving full particulars regarding reduced fares on railroads,

hotel rates and accommodations, special entertainments to be arranged by the local committee, and the like.

All communications relating to local matters should be addressed to Dr. Ernest Wende, chairman Local Committee of Arrangements, Buffalo, N. Y.

THE AMERICAN DERMATOLOGICAL ASSOCIATION will hold its next annual meeting at the Hot Springs of Virginia, September 8, 9 and 10, 1896. Everything will be done to make the meeting a success, and several papers on interesting subjects have been already promised. Dr. White will open a general discussion on the subject, What effect do diet and alcohol have upon the causation and course of the eczematous affections and psoriasis? Dr. Charles W. Allen, of New York, is the secretary.

College and Hospital Notes.

THE fifteenth annual announcement of the New York Post-Graduate Medical School and Hospital has just been issued. Five hundred and forty-two physicians from all over this continent have attended the courses at the institution during the past year. More than 1,000 operations were performed in the hospital, which is one of the largest in the city, containing special wards for babies and children, while nearly 20,000 patients were treated in the out-door department. Recent discoveries have revolutionised medical and surgical methods and a man whose medical education ended fifteen years ago is not a physician and surgeon within the present meaning of the term. Post-graduate medical instruction is for the purpose of furnishing to these graduates in medicine a means of refreshing their knowledge. It supplies them with the opportunity of coming in direct contact with disease by means of special courses in all the departments of medicine.

THE Buffalo State Hospital has in contemplation enlarged accommodations in the nature of new buildings to be called the Infirmary of the Buffalo State Hospital. It will be for the accommodation of the insane sick of western New York and will contain 260 beds, capable of being increased to 300 beds in an emergency. There will be one large central administration building, in which an assistant physician will reside, and in which there will be admin-

istration offices and a chemical laboratory. On the second floor there will be a large clinic room, in which distinguished alienists will be invited to lecture. The whole will be under the care of Dr. A. W. Hurd, superintendent of the State Hospital, whose well-known administrative ability and skill as an alienist is a guarantee of continued successful management of the hospital as enlarged.

THE City Hospital for Women is an institution lately established at 859 Humboldt parkway by Dr. Charles E. Congdon. The location is one of the most healthful in the city of Buffalo, and there is every reason why the hospital should make a good record. It will train its own nurses and avail itself of all other methods of modern hospital management. Attention is invited to the card of the hospital in our advertising pages.

Book Reviews.

INJURIES AND DISEASES OF THE GENITAL AND URINARY ORGANS. By HENRY MORRIS, M. A., M. B., Lond., F. R. C. S., Surgeon to, and Lecturer on, Surgery at the Middlesex Hospital; Member of the Council and of the Court of Examiners of the Royal College of Surgeons, England, etc. Small 8vo, pp. xvi.—478 With ninety-seven illustrations. New York: William Wood & Co. 1895.

Dr. Morris adopted a systematic course in presenting the subject matter of his book, and describes "in a methodical manner all that is requisite to be known about this subject, basing his teaching not on his own experiences only, but also on that of others," thus following out the method maintained in his *Surgical Diseases of the Kidneys*. Clearness and completeness of description are not sacrificed to brevity; fundamentals are given while details are to be sought in more extensive works. The phenomena of urinary fever he considers to be more closely connected with the affections of the kidneys than with the lower urinary tract, and refers the reader to his *Surgical Diseases of the Kidneys*.

Part I. contains fourteen chapters on the Genital Organs. The fourteenth chapter is devoted to diseases and injuries of the vesiculæ seminales, in which he quotes Lloyd, who believes that inflammation of these organs is probably a more common result of gonorrhea than epididymitis; also Velpeau, who expressed the opinion that inflammation of the seminal vesicles often arose from gonorrhea. Morris says it is generally overlooked and sometimes mistaken for prostatitis. He is evidently not familiar with the excellent work done by Fuller (New York). Nothing is said about stripping the vesicles.

Part II. treats of the genito-urinary organs which are concerned in both the functions of generation and urination—namely, the penis, urethra and prostate. The prostate is regarded as an organ connected with both of these functions, because (1) the common ejaculatory ducts pass through it; (2) it secretes a fluid which is added to and dilutes the semen at the time of ejaculation; (3) it surrounds the first part of the urethra; (4) it acts like a collar at the neck of the bladder. The part played by the prostate in the function of urination is not clearly stated. Circumcision is not regarded as an insignificant operation; care and judgment are required to prevent infection and to secure a good result.

Under the heading Folliculitis he states that hypersecretion of Littre's glands often follows urethritis. These aceni afford nests for gonococci, in which chronic discharge is maintained and where materials are generated which lead to recrudescence of the disease. Diday describes the urethra as a sieve in the holes of which gonorrhea extends and into which the remedies must penetrate. Tyson's glands in the coronal furrow may become affected.

Fabry reports a case in which he found a tumor the size of a lentil situated between the folds of the prepuce, from which he pressed a drop or two of liquid containing gonococci, yet this subject had not had gonorrhea for fifteen years. Gonorrhea persists in the glands long after the anterior urethra is dry, and this is especially true of the prostate and other glands of the deep urethra. Hence, bicycle and horseback riding, venery and various excesses frequently arouse this latent condition into pernicious activity.

Chapter eight gives a full exposé of the subject of stricture. Chapter seventeen treats of enlarged prostate. The various surgical procedures for the relief of senile hypertrophy, except ligation of the vasa deferentia, are clearly described. The views and results of castration for the relief of this malady, of several different authorities are given and he leaves the subject *sub judice*.

Part III. concerns the urinary bladder. Morris states that cystitis is extremely frequent as a result of a deep-seated urethritis, aggravated by mechanical violence or excesses. He refers to the fact that the mucous membrane of the bladder is very tolerant of microbic forms as apparent contradiction to the claim that microbic infections cause cystitis. It has been demonstrated that virulent microbes pass through the bladder without exciting cystitis, unless there be urinary stasis or lesion of the membrane. He affirms that forced injection or the passage of a catheter frequently provoke cystitis, and quotes the statement of Guyen that cystitis is characterised by three constant symptoms: frequent and painful micturition and pyuria; and that there is no elevation of temperature in uncomplicated cystitis.

In cases of acute and chronic gonorrhea he warns us of the danger of causing cystitis by forced injections and catheters.

Irrigation of the bladder is to be avoided in acute cystitis.

The reviewer differs from the learned author. His experience has taught him that forceless and catheterless irrigation of the acutely inflamed bladder is the treatment *par excellence*.

Diseases and Injuries of the Genital and Urinary Organs is illustrated with 100 cuts, some of which are original, and many authorities are quoted and credited. This volume is a very valuable addition to medical literature. B. H. D.

A MANUAL OF ANATOMY. By IRVING S. HAYNES, Ph. B., M. D., Adjunct Professor and Demonstrator of Anatomy in the Medical Department of the New York University; Visiting Surgeon to the Harlem Hospital, etc. 8vo. pp. 680, with 130 half-tone illustrations and 42 diagrams. Price, \$2.50 net. Philadelphia: W. B. Saunders. 925 Walnut street. 1896.

This volume does not aim to be a complete treatise upon anatomy. The author deals principally with the viscera and their relations to the surface of the body. Only so much of the anatomy of the extremities has been given as seemed required. The bones, joints and minuter parts requiring special preparation for dissection have been intentionally omitted. The descriptions of the various viscera are terse but complete, and in the case of the more important organs include the essential points in the history of their development.

The chapter upon the peritoneum is excellent and so clearly written as to surely help the student in better understanding it.

The index is exceptionally complete and accurate. In short, the book contains a large amount of accurate and useful information in comparatively small compass.

We wish we could speak as enthusiastically about the illustrations. Why authors and publishers will deface their books with illustrations that mystify rather than elucidate we cannot understand. Until photography is so far advanced that it can represent tissues faithfully, not only in form but color, it should not be made use of in text-books. The photographic illustrations in this book are many of them little more than blots and convey little or no information to one familiar with anatomy. It may well be asked, therefore, of how much real service they can be to those beginning the study of this science, the very ones for whom this manual is intended.

The type and general make-up of this volume are excellent and do great credit to the publishers. J. P.

REPORT OF THE COMMISSIONER OF EDUCATION FOR THE YEAR 1892-93. Volumes I. and II. Washington: Government Printing Office. 1895.

It is a matter of surprise that so important a bureau of the government as that of education should delay the publication of its

annual volume for so long a period of time. Many of the questions dealt with in it lose much of their force and effect in their presentation two or three years late. These remarks seem to us especially to apply to the chapter on medical education in the second volume. While there is much in it that will remain of value for reference, yet many things have happened since it was written and much progress has been made. Such a chapter from the highest educational authority in the country should be exhaustive and current. It should be made to contain everything of importance that has happened in the medical educational world for the previous year, and it should come to hand promptly. We hope the good work of methodising medical educational progress and recording it in annual governmental publication will continue and that it will be distributed to the profession with promptitude.

VOICE BUILDING AND TONE PLACING, Showing a New Method of Relieving Injured Vocal Cords by Tone Exercise. By H. HOLBROOK CURTIS, Ph. B., M. D., Fellow of the New York Academy of Medicine; Fellow of the American Laryngological, Rhinological and Otolological Association, etc. Pp. 227. Illustrated. New York: D. Appleton & Co. 1896.

To most singers the importance of building the voice on a substantial basis and of preserving it with the utmost care is a matter of great moment, because upon it depend their fame and fortune. This is especially true of such artists as Jean and Edouard de Reszke and Mesdames Melba, Eames, Nordica and Patti. That they should have preserved their voices into middle life, maintaining them with the tone and freshness of youth, with an increasing power and richness of volume, indicates the careful training they have had and the discipline they maintain. While this book indicates many valuable points that pertain to voice building and tone placing, and even lays claim to a new method of relieving injured vocal cords by tone exercises, we still think that it has been written for the more particular purpose of advertising its author. His frequent reference by name to many of the noted singers of the period and his dedication of it to the most famous tenor of the times would seem to justify this conclusion. We would, however, commend it to the examination of all interested in the subject, for they will be able to find in it much of value.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA. Forty-second annual meeting, held at Goldsboro, N. C., May 14, 15 and 16, 1895. Wilmington, N. C.: Legwin Brothers. 1895.

The medical society of the old North State always has an interesting meeting and publishes its work in accessible form. In this volume are to be found several valuable papers and much instruct-

ive discussion. In addition to the annual address of the president, this society has a fashion of appointing an annual essayist and an annual leader of debate on some definite subject. This year the essayist was Dr. R. H. Stancell, Jr., of Margaretsville, who chose for his subject Empiricism, which he handled in an able manner. The leader of the annual debate was Dr. A. A. Kent, of Lenoir, and his subject was the abuse of alcoholic stimulants in practice. This is an important question and was pointedly dealt with. We think the space taken up by publishing the code of ethics might have been devoted to a better use.

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION. Volume XIII. Edited by DEFOREST WILLARD, A. M., Ph. D., M. D., Recorder of the Association. Philadelphia: Printed for the Association and for sale by William J. Dornan. 1895.

The transactions of this association are always among the most important of the special societies. The president, Dr. Frederick S. Dennis, of New York, chose for the subject of his annual address, The etiology, diagnosis and treatment of malignant disease. There is no subject of greater import and none which demands more skill in diagnosis in its early manifestations. Dennis lays great stress on the influence of injury in the development of malignant growths, and we think his views are deserving of profound consideration. A series of papers in the discussion of the operative treatment of cancer in various localities is recorded in this book, which is easily the most comprehensive presentation of cancerous diseases that has appeared in recent literature. J. William White, of Philadelphia, presents a comprehensive paper on the results of double castration in hypertrophy of the prostate, which is manifestly a final determination of the subject to the present date. A discussion on anesthetics, participated in by Gay, of Boston; Weir, of New York, and Deaver and Frese, of Philadelphia, is most timely and forceful. Park, of Buffalo, presents two papers—one on the consequences of hyperemia and the pathology of inflammation and suppuration, and another on the results of division in the neck of the pneumogastric and phrenic nerves. Mastin, of Mobile, offers an interesting clinical report of gunshot wound of the heart. Many other valuable papers go to make up one of the best volumes ever issued by this association, and it is easy to understand why every practical surgeon is anxious to possess it.

HOW TO FEED CHILDREN. A Manual for Mothers, Nurses and Physicians. By LOUISE E. HOGAN. Price, \$1.00. Philadelphia: J. B. Lippincott Company. 1896.

This hand-book belongs in that excellent series, Practical lessons in nursing. It includes an instructive chapter on infant feeding, in which the mother is wisely referred to her physician for the proper formula in the individual case, while she is shown the method of sterilising, the selection and care of the nursing

bottle, and the like. The various classes of foods are taken up in detail, with their nutritive value, the best methods of preparing and the age at which they may be given. Dietaries and menus, summer diet, and diet in illness, are each given a chapter. Every physician who reads the book will feel that in recommending it to mothers he suggests a safe guide, which, if followed, will lessen the frequency of gastro-intestinal disorders among the young.

M. J. F.

SYPHILIS IN THE MIDDLE AGES AND IN MODERN TIMES. By Dr. F. BURET, Paris, France. Translated from the French, with notes, by A. H. Ohmann-Dumesnil, M. D., Professor of Dermatology and Syphilology in the Marion Sims College of Medicine; Consulting Dermatologist to the St. Louis City Hospital, to the St. Louis Female Hospital; Physician for Cutaneous Diseases in the Alexian Brothers' Hospital; Dermatologist to Pius Hospital, to the Rebekah Hospital, to the St. Louis Polyclinic and Emergency Hospital, etc., etc. Being Volumes II. and III. of Syphilis Today and Among the Ancients, complete in three volumes. Duodecimo, 300 pages. Extra cloth, \$1.50 net. Philadelphia: The F. A. Davis Co., Publishers. 1895.

This interesting volume has been carefully written and faithfully translated. It is a classic history of a classic disease, and will prove valuable to every student of the subject. M. Buret is a scholarly and finished writer and Ohmann-Dumesnil has translated his idiom into smooth and fascinating English. Whoever would perfect his knowledge of the history of syphilis must assuredly possess this work.

TRANSACTIONS OF THE AMERICAN MICROSCOPICAL SOCIETY. Eighteenth annual meeting, held at Cornell University, Ithaca, N. Y., August 21, 22 and 23, 1895. Edited by WILLIAM C. KRAUSS, M. D., secretary, Buffalo, N. Y. Price, \$2.50. Buffalo: The Wenborne-Summer Co., Printers. 1896.

This handsomely printed and well-illustrated volume is a credit to the society whose proceedings it records. We could wish, however, that its binding was more substantial. A volume of 400 pages in paper is of short duration and of inconvenient reference. Those especially interested in preserving the book, no doubt, will incase it in cloth. Every student of microscopy will derive benefit from a study of this book, and, no doubt, will hasten to possess it.

PRESBYTERIAN HOSPITAL REPORT. Medical and Surgical Report of the Presbyterian Hospital in the City of New York. Volume I., January, 1896. Edited by ANDREW J. MCCOSH, M. D., and WALTER B. JAMES, M. D. New York: The Knickerbocker Press.

This report embraces some of the work done at the Presbyterian hospital and is the forerunner of contemplated annual reports which shall review some of the interesting cases received at this hospital.

After giving the names of the managers, medical board, visiting and attending staffs, twenty-six cases of rare diseases are reported,

such as caisson disease, tetany, extra-uterine gestation, foreign body in stomach, tumors of the kidney, coccygeal cyst, and the like. Then follows the statistics of the medical and surgical wards, list of operations and the formulæ of the operating pavilion.

This report is worthy of emulation by other hospital boards and is in the line of the work mapped out by the former Erie county hospital staff.

W. C. K.

A MANUAL OF MEDICAL JURISPRUDENCE AND TOXICOLOGY. By HENRY C. CHAPMAN, M. D., Professor of the Institutes of Medicine and Medical Jurisprudence in Jefferson Medical College of Philadelphia: Member of the College of Physicians of Philadelphia, etc., etc. Second edition, revised. With fifty-five illustrations and three plates in colors. Saunders' New Aid Series. Small 8vo, pp. 254. Price, \$1.50. Philadelphia: W. B. Saunders. 1896.

The first edition of this work was reviewed in the December, 1893, number of the JOURNAL, page 314, and the criticisms there noted have in a measure been acted upon. The text and scope of the new edition is practically the same as in the former edition, but has been greatly improved by the addition of many illustrations and tables. Bibliographical notices have also been inserted and the volume now is a welcome addition to the most interesting of all the medical sciences.

W. C. K.

THE PRINCIPLES OF BACTERIOLOGY. A Practical Manual for Students and Physicians. By A. C. ABBOTT, M. D., First Assistant Laboratory of Hygiene, University of Pennsylvania, Philadelphia. Third edition, enlarged and thoroughly revised. Duodecimo, 492 pages, with ninety-eight illustrations, of which seventeen are colored. Cloth, \$2.50. Philadelphia: Lea Brothers & Co., Publishers.

The second edition of this popular little work was reviewed by the writer in the January, 1895, number of the JOURNAL, page 380, and its many good points pointed out. The appearance of another edition in such a short time demonstrates fully its acceptability and, therefore, desirability by students and the profession, and the author is to be congratulated on his efforts. The third edition is subject to a few changes over the second, mainly, however, in keeping pace with the rapid strides made in bacteriology.

W. C. K.

BOOKS RECEIVED.

Transactions of the Medical Society of the State of New York for the Year 1896. Frederic C. Curtis, M. D., Secretary, Albany, N. Y. Philadelphia: Wm. J. Dornan, Printer, 100 N. Seventh street. 1896.

Keil's Medical, Pharmaceutical and Dental Register-Directory and Intelligencer. With special Medical, Pharmaceutical and Dental Departments, containing detailed information of colleges, hospitals, asylums, societies; with street lists, etc., etc., for Pennsylvania, New York, New

Jersey, Maryland, Delaware and District of Columbia. Fourth edition. George Keil, editor. Philadelphia: Burk & McFetridge Co., Publishers, 306 Chestnut street. 1896.

Transactions of the Southern Surgical and Gynecological Association. Eighth annual meeting, held at Washington, D. C., November 12, 13 and 14, 1896. W. E. B. Davis, M. D., Secretary, Birmingham, Ala. Published by the Association. Philadelphia: Wm. J. Dornan, Printer, 100 N. Seventh street. 1896.

Practical Points in Nursing, for Nurses in Private Practice. With an appendix containing rules for feeding the sick, recipes for invalid foods and beverages, weights and measures, dose list and a full glossary of medical terms and nursing treatment. By Emily A. M. Stoney, Graduate of the training school for nurses, Lawrence, Mass.; Superintendent of training school for nurses, Carney Hospital, South Boston, Mass. Octavo, pp. 456. Illustrated. Price, \$1.75 net. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

A Manual of Obstetrics. By W. A. Newman Dorland, A. M., M. D., Assistant Demonstrator of Obstetrics, University of Pennsylvania; Instructor in Gynecology in the Philadelphia Polyclinic etc. Octavo, pp. 760. Illustrated. Price, \$2.50 net. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

The Multum in Parvo Reference and Dose Book. By C. Henri Leonard, M. A., M. D., Professor of the Medical and Surgical Diseases of Women, Detroit College of Medicine. Flexible leather, 143 pages. Price, 75 cents. Detroit: The Illustrated Medical Journal Co., Publishers. 1896.

In Sickness and in Health. A Manual of Domestic Medicine and Surgery, Hygiene, Dietetics and Nursing. Dealing in a practical way with the problems relating to the maintenance of health, the prevention and treatment of disease and the most effective aid in emergencies. Edited by J. West Roosevelt, M. D., Late Physician in Charge of Seton Hospital for Consumptives; Visiting Physician to Bellevue Hospital, and Attending Physician to Roosevelt Hospital, New York. Complete in one volume of over a thousand pages. Illustrated with four colored plates and numerous engravings. Full analytical index. Sold only by subscription. Price, \$6.00, in handsome cloth binding. Delivered to any address in the United States or Canada. New York: D. Appleton & Co., Publishers, 72 Fifth avenue. 1896.

Transactions of the American Association of Obstetricians and Gynecologists. Volume VIII. Eighth annual meeting, held at Chicago, September 24, 25 and 26, 1895. William Warren Potter, M. D., Secretary, Buffalo, N. Y. Philadelphia: Wm. J. Dornan, Printer, 100 N. Seventh street. 1896.

Anregung zur Reform der Physiologie des Menschen von Dr. F. Jezek. Mit Zahlreichen Abbildungen im Texte. Stuttgart: Hobbing & Büchle. 1896.

A System of Surgery. By American authors. Edited by Frederic S. Dennis, M. D., Professor of the Principles and Practice of Surgery, Bellevue Hospital Medical College, New York; President of the American Surgical Association, etc., assisted by John S. Billings, M. D., LL. D., D. C. L., Deputy Surgeon-General, U. S. A. Complete in four

imperial octavo volumes, containing 3,652 pages, with index, 1,585 engravings and forty-five full-page plates in black and colors. Volume IV., 970 pages, 441 engravings and twenty-three plates. Price, per volume, \$6.00 in cloth; \$7.00 in leather; \$8.50 in half Morocco gilt back and top. For sale by subscription. Full circular free to any address on application to the publishers. Philadelphia: Lea Brothers & Co. 1896.

Literary Notes.

THE *Scientific American* for July 25, 1896, is an edition *de luxe* commemorating the fiftieth anniversary of its foundation. Its first cover page is a symphony in art printing and illustration. Its coloring is soft and its design is appropriate and beautiful. The first reading page is devoted to reproductions of its issues for July 23 and August 28, 1846, while the remainder of its pages trace the improvement in methods of transit by land and sea, as well as in various industries, agriculture, astronomy, art, commerce, printing and other innumerable avenues of progress. An interesting illustration is one entitled Some distinguished inventors of the last half-century, in which we find medallions of Morse, Ericsson, Thompson, Howe, Bell, Harvey, Colt, Corliss, McCormick, Edison and Tesla, all grouped on a single plate. The projectors of the transatlantic cable is another historic picture that attracts attention and admiration. A full-page plate entitled Men of progress, contains the pictures of the principal inventors of the age and is full of attractiveness and furnishes food for much thought.

The *Scientific American* is to be congratulated in having maintained such an honorable place in scientific periodical literature for half a century, on the beautiful anniversary number that it publishes commemorative of its jubilee, and on the vast benefit it has bestowed on mankind.

THE *Western Medical Review* issued its first number May 20, 1896. It is a well-printed double-column quarto and presents evidences of skilful management in its editorial department. The arrangement of its material is good and its selections for the most part are satisfactory; but we think it might have used its time and space to better advantage than to have printed Senn's abuse of the gynecologists in his Atlanta address. The first number of this magazine appears without advertisements, an unusual circumstance. We presume, however, that it will soon display these in goodly

number and quality. We wish our new friend all the success that a work so well begun can and ought to command.

THE New York Physicians' Mutual Aid Association has issued its twenty-seventh annual report, which shows a measure of prosperity that is truly remarkable. The total income from all sources during the year has been \$21,293.88, while the entire running expenses have been only \$1,465.66. There has been a net gain of 109 members during the year and the total membership January 3d was 1,333. It is difficult to understand how any physician in good repute should hold aloof from an association so economically managed and that provides such advantages.

THE *Laryngoscope* is the name of a new journal that appeared in July, which is devoted entirely to the consideration of diseases of the nose, throat and ear. The *Laryngoscope* proposes to fill the niche between the strictly special and the general journals and is intended for physicians who confine themselves entirely to the treatment of the diseases mentioned or for those who pay special attention to those diseases while maintaining at the same time a general practice. It is published monthly at St. Louis and is edited by Drs. Frank M. Rumbold and M. A. Goldstein. The first number is a fine-looking medical magazine and appears as though it intended to fulfil its promises.

THE *Students' Hand-Book* is the name of a little brochure issued by students in New York City as a pocket companion. It treats briefly regarding college and city and will be specially helpful to new students. The Students' Club is a homelike resort for students and is located at 129 Lexington avenue, New York City. It is open to all students, whether members or not, from 8 A. M. to 10 P. M. daily, where upper class men will be glad to give to new students a cordial welcome, together with such information about reliable boarding-houses and other matters of special interest to strangers.

THE *Electrical Review* has just completed its twenty-eighth volume, which contains some of the best newspaper work ever done by a technical journal. In addition to giving thoroughly reliable news of the progress of electrical work in all its branches, the *Electrical Review* has secured in the past six months a large number of unusually valuable and exclusive articles on important subjects.

It printed the first official interview with Prof. Röntgen and the only interview with Prof. Salvioni, of the University of Perugia, Italy, who made some very interesting and remarkable discoveries on the Röntgen ray.

THE *Archives of Clinical Skiagraphy* is a new candidate for professional favor. The object of this publication, says its editor, is to put on record in permanent form some of the most striking applications of the new photography to the needs of medicine and surgery. It is edited by Sydney Rowland, B. A., Camb., of London, and is published by the Rebman Publishing Co., Ltd., 11 Adam street Strand, London. We have received from the publishers the first two parts, May and June, 1896, which are beautiful specimens of medical magazine art. This publication is printed in quarto form, on heavy, highly finished book paper, with large-faced, handsome type, and the illustrations are artistic specimens of photomezzotypes, made by the London Stereoscopic Company. We have never seen the Röntgen X ray applied with such forcefulness and exactitude, nor developed in so much detail as in these pictures. No one interested in skiagraphy can afford to do without this magazine.

Wilkinson's Medical Magazine is the name and successor of the *Omaha Clinic*, which latter has been discontinued. If the new journal attains the excellence of its predecessor it may well be proud of itself.

THE *New York Medical Journal* has lately appeared in a new dress that has given it a greatly improved appearance. This sterling medical weekly has justly attained the highest eminence in the field of medical journalism, and the new and improved dress referred to is an indication that the publishers propose to omit nothing that will serve to keep their journal always in the fore front.

IT HAS been decided to erect in one of the squares of Paris a monument to Louis Pasteur. This tribute to the memory of Pasteur will be obtained through international effort. Dr. D. E. Salmon, chief of the bureau of animal industry, Washington, is chairman, and Dr. E. A. De Schweinitz, chief chemist, Biochemic laboratory, is the secretary of the American committee. The headquarters of the committee is at the Cosmos club, Washington, D. C. Subscriptions will be received by Dr. William Warren Potter, associate member of the committee, 284 Franklin street.

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No. 2.

Original Communications.

MODERN GASTROSTOMY FOR STRICTURE OF THE ESOPHAGUS—WITH REPORT OF A CASE.

By LEWIS S. McMURTRY, A. M., M. D., of Louisville, Ky.,

Professor of Gynecology and Abdominal Surgery in the Hospital College of Medicine,
Louisville; Surgeon-in-Charge of the Jennie Casseday Infirmary for Women;

Fellow of the American Association of Obstetricians and
Gynecologists, etc., etc.

CONSPICUOUS among the achievements of modern abdominal surgery are the great improvements in the surgery of the gastro-intestinal tract. Not only have many altogether new operations been devised and established, but some old operations have been improved and restored to favor by improved methods and a perfected technique. Among these latter is the operation of gastrostomy, whereby a gastric fistula is provided in cases of increasing cicatricial or cancerous stricture of the esophagus, through which the patient may be fed and spared the pangs of starvation.

The old method of direct incision and stitching the viscus to the margins of the parietal incision was practically rejected by the profession and is now abandoned. When the operation, as then done, succeeded, the result was far from satisfactory. The trouble was in keeping the fistulous tract tightly adjusted to the tube. Under the old method the subsequent regurgitation and leakage through the tube deprived the patient of the desired advantage and inflicted additional discomfort. The food poured into the stomach would flow back through and alongside the tube, so that the patient was not nourished; and the uncleanness and excoriation consequent upon this condition were painful and annoying. And to this the danger of the operation itself was added, a large proportion of cases terminating fatally from septic peritonitis and pneumonia following the operation.

The skill and ingenuity of modern surgeons have now provided several methods of performing gastrostomy which are free from

these objections. Moreover, modern gastrostomy is now perfected to such an extent that no patient with stenosis of the esophagus need die of starvation, while the operation itself involves but trifling danger when properly performed. These improved methods have placed the indications for gastrostomy upon an entirely new basis. It is no longer admissible to let the patient with malignant or cicatricial stenosis of the esophagus go until fluids cannot pass into the stomach; or, as sometimes, until rectal alimentation will no longer suffice. As Meyer puts it, in cases of cancer of the esophagus, a gastric fistula should be established as soon as the scales show a steady decrease in weight; in cases of a burn of the esophagus, gastrostomy and timely dilatation may prevent incurable conditions.

Gastrostomy, as formerly performed, consisted of a three-inch incision made parallel with the border of the ribs on the left side, from near the median line down to the eighth costal cartilage. The parietes were divided, including the peritoneum, and the anterior wall of the stomach attached by sutures to the margins of the abdominal incision. An area of the gastric surface, about one and one-half inches long and one inch wide, was attached by sutures, and a loose tamponade applied. From three to five days thereafter the stomach was incised, a small opening being made and a tube inserted. In the meantime the patient was maintained by rectal alimentation. This method is known as Fenger's, the operation having been modified and practised, in 1853, by C. E. F. Fenger, of Copenhagen.

As already stated, the objection to this primitive method of gastrostomy is the almost universal leakage around the tube, rendering the operation functionally inefficient. In consequence, the operation of gastrostomy fell into disfavor and Fenger's method is now obsolete.

Of the several methods recently devised, and which overcame all former difficulties and objections, I shall describe only two, since I am sure that one or the other of these operations will meet the requirements of all cases.¹

Witzel's Method.—This procedure, devised and practised by Oscar Witzel, was published in 1891, and is in many particulars preferable to all other methods. As a primary operation in cases

1. I have omitted detailed description of Von Hacker's method, which, on account of ease and rapidity of performance, is suited for extreme cases unable to bear other operations. Its field is limited to such cases; its functional results are not equal to the two operations described. Hahn's method is likewise omitted, being inferior to the two methods described.

of burn of the esophagus, wherein timely dilatation of the cicatricial construction is applied, it is superior to every other method. It has the double advantage of preventing all leakage and of closing spontaneously when the tube is removed and left out. At the same time, it is more difficult to perform than the other method to be described; has an element of immediate danger in opening the viscus prior to stitching the peritoneum, and requires the tube to be worn under the constant supervision of the surgeon, so that readjustment may be promptly made if the tube should be extruded. The operation is thus performed: Fenger's oblique incision is first

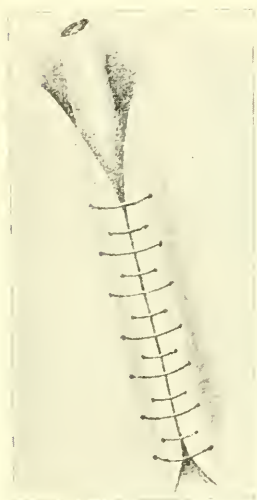


FIG. 1.—MEYER.

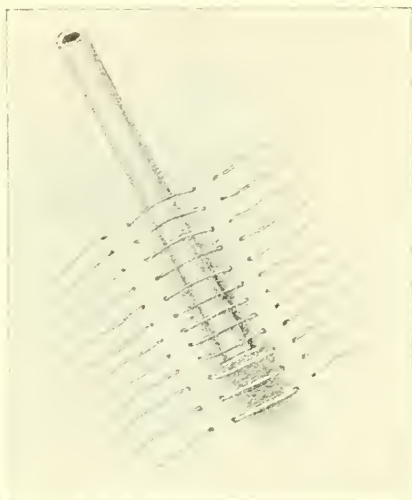


FIG. 2.—MEYER.

made through the skin and cellular tissue. A longitudinal incision is then made in the sheath of the rectus muscle and blunt separation made of the fibers of the rectus and transversalis muscles parallel to their course. While these are held aside by blunt hooks, the peritoneum is divided obliquely. The stomach is drawn out, packed around with gauze, and incised near the fundus sufficiently to admit a quarter-inch diameter rubber tube. The tube is infolded by Lembert sutures to the extent of about one and one-half inches upward in the oblique direction of the external incision, also extending the line of sutures half an inch below the opening into stomach. (See Fig. 1.) When the sutures are tied, the tube will be infolded, as shown in Figure 2. The stomach is then dropped back and the peritoneum shut off by suturing all around the opera-

tive area to the parietal peritoneum. The abdominal incision down to the peritoneum is then closed with silk-worm-gut sutures up to the upper angle where a snug opening is left for the tube. When the blunt hooks are removed from the separated muscles, it will be observed that the fibers of these muscles securely clamp the tube. In cases where this method has been applied by Witzel, Mikulicz, and Meyer, the fistula has remained pervious for months without regurgitation or leakage, and in one case closed spontaneously when the tube was left out.

Ssabanejew-Frank Method.—According to Dr. Willy Meyer, of New York, to whose writings I am greatly indebted, as well as

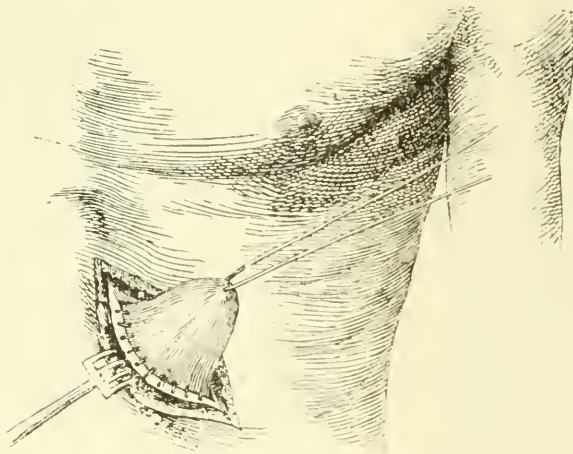


FIG. 3.—MEYER—CONE OF STOMACH DRAWN THROUGH INCISION AND ITS BASE SUTURED TO PERITONEUM.

for the illustrations of this paper, Ssabanejew, of Odessa, devised and performed the valuable method next to be described, in 1890. In 1892, R. Frank, assistant to Albert, in Vienna, devised independently and without knowledge of Ssabanejew's work, practised the same procedure.

This operation is begun with Fenger's incision. The muscles having been bluntly separated in the direction of their fibers the peritoneum is opened. The stomach is drawn forward and a silk sling is passed through the outer coats at a point near the fundus, so as to draw outside a cone of about one and one-half inches. (See Fig. 3.) The edges of the parietal peritoneum are now sutured to the serous coat of the stomach around this cone, so as to shut off the general peritoneum. Frank advises that the sutures

include the muscles also. A second incision is now made about one inch above the border of the ribs, parallel to the first incision, and about one-half to three-quarters of an inch in length. This incision divides skin only. The skin between the two incisions is raised from the cartilage by blunt dissection and the sling thread passed underneath and out the smaller incision, drawing the cone of stomach out. (See Fig. 4.) The first incision is now closed with silkworm-gut sutures. The projecting apex of the cone of the stomach is now incised for about half an inch and its mucous membrane sutured to the skin. (See Fig. 5.)

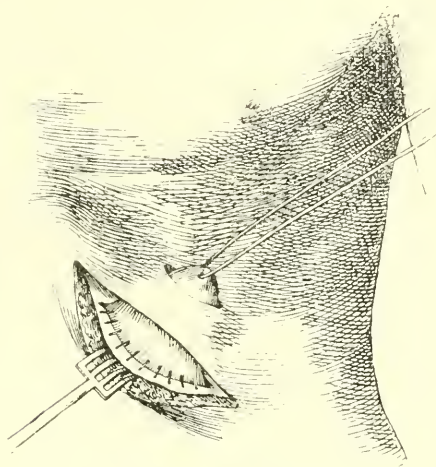


FIG. 4.—MEYER.

Feeding may be instituted immediately. The following diagram (Fig. 6), also from Meyer's paper, illustrates the indirect and valvular opening into the stomach. The pressure upon the fistulous canal between the skin and costal cartilage, as well as by muscular compression, has proved quite as effective in preventing leakage as in the method of Witzel. In the case appended to this article I depended altogether upon the muscular force for the necessary compression, and with most satisfactory results. The management of the tube after operation by this method is very simple. The tube need not be constantly worn and the patient can, in most instances, feed and care for himself or herself.

This operation has now been done by Ssabanejew and Frank, four cases each; Meyer,¹ three cases; Winslow,² two cases; Max Stern,³ one case; Thomas S. K. Morton,³ one case; Hupp,⁴ one

case; Edward Martin,⁵ one case; and Finney, one case. In all these cases the results were quite satisfactory, so far as the working of the fistulæ was concerned, and the method merits the highest commendation. In one of Winslow's cases, wherein the operation was on account of cicatricial stenosis, the artificial opening acted efficiently during four months while instrumental treatment was carried on and the caliber of the esophagus restored. The edges of the fistula were then pared and sutured, and permanent closure was promptly obtained.

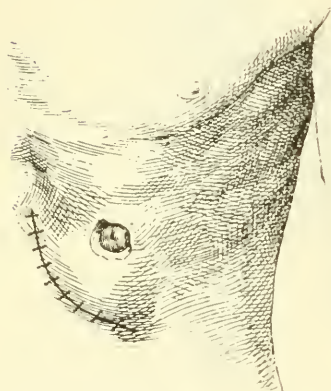


FIG. 5.—MEYER.

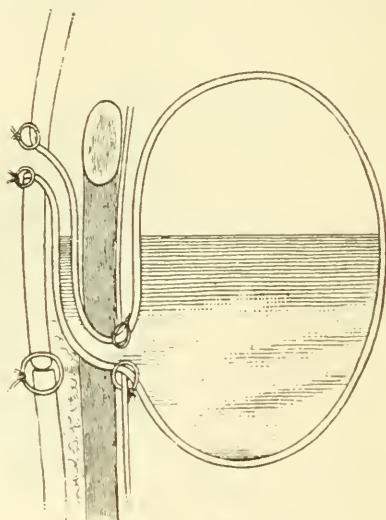


FIG. 6.—MEYER.

REPORT OF CASE.—Mrs. R., aged 70, was admitted to the infirmary under my care, January 29, 1896. I had visited her the preceding day at her home and her condition was indeed distressing and pitiable. She was emaciated, her features were pinched, and her efforts to swallow soup, milk and water were constant and persistent. A small quantity of fluid would be retained in the sacculated portion of the esophagus above the stricture, only to be rejected in a few minutes. She was suffering intensely from the pangs of thirst and hunger. I at once instituted systematic rectal alimentation and had her removed to the infirmary the following day. Sounding revealed impermeable stricture of the cardiac end of the esophagus, undoubtedly the result of malignant disease.

The following day I did gastrostomy after the Ssabanejew-Frank method above described, with a slight modification. The parietal incision was made parallel to and three-quarters of an inch below the

costal arch of the left side and to the outer side of the left rectus muscle. The incision was three and one-half inches in length and the peritoneum was exposed and divided to the same extent. The stomach was readily identified and drawn into the incision. A silkworm-gut suture was passed through the serous and muscular coats, so that a cone of the stomach wall could be drawn out through the incision. Passing a finger along the upper surface of the viscus, toward the esophageal entrance, an indurated mass could be felt posteriorly, which interfered with free traction. The traction-suture was placed as near the esophageal entrance as necessary traction would permit. While the cone was firmly drawn into the incision a continuous suture of chromicised catgut was carried around its base, uniting the serous and muscular coats of the stomach to the parietal peritoneum. Silkworm-gut sutures were then placed to close the abdominal incision, these sutures being carried down to, but not through, the peritoneum, with the exception of two now to be mentioned. At the upper and lower angles of the incision the silkworm-gut sutures were carried through the parietal peritoneum and also through the serous and muscular coats of the stomach. These strong sutures are of essential importance to firmly hold the viscus in place and avoid undue traction on the continuous catgut suture, uniting the stomach to the parietal peritoneum. After placing the silkworm-gut sutures (passing through the entire abdominal wall), but before tying them, small strips of gauze were packed around, and the stomach opened. Bleeding was slight from the incised stomach wall and no outflow of gastric contents occurred during the operation or afterward, although the patient was sick from ether anesthesia.

In consequence of the extent of the disease about the cardiac extremity, the stomach did not yield readily to traction; hence, instead of making the second incision through the skin and drawing the cone of stomach through, I sutured the incision so that the tube would emerge from the opposite end of the incision from the opening in the stomach. That is, the stomach was opened opposite the lower angle of the incision and the tube was sutured over in the parietes and allowed to emerge from the upper angle of the incision. Since immediate union took place, the same valvular course was obtained for the tract of the tube, and retention was effected.

No shock followed the operation and barring some nausea from the anesthetic the patient was quite as comfortable immediately after the operation as before. The pulse was normal—72 to 76—throughout. Feeding was instituted the following day, giving liquids through the tube. The quantity given at first was small and was gradually increased. After the third day the patient was encouraged to sit up in bed, half reclining on pillows, in order to prevent pneumonia, which is so often a fatal complication after this operation. There was slight regurgitation

through the tube at first, but this soon ceased, and gradually increasing quantities of food and water were retained. There was no leakage at any time alongside the tube. The incision united throughout by immediate union.

At the end of two weeks the patient was up and about her room. She gained strength quickly and the increase of flesh, as indicated by weight, was marked and steady. The torture of thirst and hunger was relieved immediately. She had much comfort from chewing tender pieces of beefsteak and chicken, thereby gratifying the sense of taste. Owing to the relief from irritation (caused by constant efforts at swallowing before operation), the stricture permitted some fluid to pass dur-



FIG. 7.

ing attempts at swallowing. At the end of the third week the patient returned to her home, being quite able, with the assistance of her niece, to feed herself. The photograph (Fig. 7) was taken at this time.

For four months the patient got on very well, when the systemic effects of the disease were manifested by emaciation and marked cachexia. She failed thereafter and died during the last week in May. The gastric fistula remained tight throughout, and the relief and comfort afforded by the operation were incalculable.

1. American Journal of Medical Sciences, October, 1894.
2. Annals of Surgery, May, 1895.
3. Morton's paper, Medical News, January 25, 1896, page 87.
3. Medical News, January 25, 1896, page 86.
4. New York Medical Journal.
5. Annals of Surgery, March, 1896.
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231 WEST CHESTNUT STREET.

THE CLINICAL IMPORTANCE OF THE EXAMINATION OF FECES.¹

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GREAT progress has been made in accurate and scientific methods of determining the secretions and excretions of the body, as related to the normal and pathological conditions. As an instance of this progress, I would refer to the discovery of the etiological rôle played by the Laveran plasmodium malariae in the determination of malarial fever. Every clinician today examines the blood as to its behavior in the primary and secondary anemias, and the physical examination of a phthisical patient is incomplete until the tubercle bacillus can be demonstrated under the impartial eye of the microscope, as the specific organism in this disease. No one can accurately ascertain the pathogenesis of the genito-urinary tract without examination with the microscope of the gonococcus within the pus-cells in gonorrhea, or the examination of the sediment in vesical or nephritic diseases. The profession today is thankful to Ewald, Boas and Einhorn for their original work in illuminating general medicine by their chemical and microscopic examination of stomach contents.

The object of this paper is to impress upon you the necessity for a closer study of the contents of the intestinal tract. It is true that studying the feces is not the most agreeable or esthetic task, but it is not more disagreeable to accustom our fine sense of smell to this work than to the post mortem room.

The feces consist, according to Nothnagel,¹ of (1) changed or unchanged remains of the food consumed; (2) bacteria; (3) portions of the intestinal and gastric secretions; (4) formed and unformed elements from the intestinal wall; and (5) salts which are the products of digestion.

We study the dejecta macroscopically, microscopically and bacteriologically. Macroscopically we study them as to their frequency and amount, consistency and form, color, odor and reaction. The frequency and amount are both dependent upon the food stuffs ingested. In a healthy person there occur several stools daily; in others there is catharsis every other day, and between these extremes there are all sorts of gradations. In a constipation the irregularity of evacuating the bowel is accompanied by symptoms of disease, and the food stuffs ingested are not

1. Read before the Buffalo Academy of Medicine, Section on Pathology.

proportional to the feces excreted; in diarrhea the stools are not only frequent but also liquid in character.

Rubner found that after taking 2,438 gms. of milk, 120.8 gms. of feces were excreted, and after taking 1,435 gms. of meat 81.2 gms. of feces were evacuated. Vegetables increase the amount, so that in an ordinary mixed diet Nothnagel has demonstrated that 150 to 180 gms. of fecal matter are passed in twenty-four hours. In the starving the stools are reduced to a minimum, and here it must not be forgotten that in many or all disease processes the patient is in a starving condition. Diseases which decrease the frequency and amount of the stool by the accompanying constipation are: (1) chronic enteric catarrh; (2) gastrectasis; (3) stenoses, esophageal, cardiac, pyloric or intestinal; (4) peritonitis; (5) meningitis and other affections causing intracranial pressure; (6) chronic obstipation, *per se*, which is nervous in origin, and in which the peristalsis of the colon and rectum is paralysed. This variety is encountered in *tabes dorsalis*. On the other hand, diseases which increase the frequency by the accompanying diarrhea are: (1) gastric catarrh; (2) chronic peritonitis; (3) tuberculosis of the intestinal tract; (4) amyloid degeneration of the intestines; (5) hepatic cirrhosis; (6) nephritis with uremia; (7) cholera, dysentery; (8) typhoid fever and other infectious diseases.

Blood and mucus can increase the volume of the stool, and after a constipation the dejecta are temporarily increased.

The normal consistency of the stool is soft, doughy and the form is familiar to all; the consistency is dependent upon the relative amount of water in the dejecta. In a general way it may be said that the longer the feces remain in the large intestine, the more solid will they be evacuated and, *vice versa*, the shorter the contact with the walls of the large intestines the more liquid will they appear.

In a high lying stenosis of the intestine the feces may be decreased in diameter and may appear long, thin, drawn out and in the shape of a lead pencil; but this need not necessarily be, for on their passage downward to the anus they may be reformed again. On the other hand, if the seat of stricture is in close proximity to the anus the dejecta will always appear in the form described above. A stool such as is mentioned need not necessarily point to a stricture due to an organic lesion, for such stools are also passed in nervous spastic conditions of the intestine, as in hysteria.

The normal color of feces is dark brown, due to the changed bile pigment, urobilin. The color in nurslings is a light to a golden yellow. Diet affects the color perceptibly. In a milk diet, or one rich in fats, the stools are light; a great indulgence of meat gives to the dejecta a brownish-black appearance, due to hematin and iron sulphide. Red wine and black cherries produce dark stools. Drugs also affect the color. Calomel produces a green tinge, due to the reunion of mercaptan with mercury; iron and bismuth preparations produce a black stool, because of the combination with sulphides. The stool becomes darker a short time after evacuation, due to the oxidising influence of the oxygen in the atmosphere. Pathologically the stool becomes darker in constipation and in intestinal hemorrhage. In acholics, where no bile enters the intestinal canal, either because of duodenal enteritis or closure of the biliary passages, the dejecta are very light. They are light not only because of the absence of bile pigments, but also because of the presence of undigested and unabsorbed fats.

The disagreeable odor of the dejecta is due to skatol and indol, aromatic substances, resulting from the putrefaction of the proteids. Because of the more pronounced putrefactive changes in enteric catarrh the odor becomes very foul, due to the presence of sulphuretted hydrogen and water gas. According to Sahli,² the stool is normally weakly acid and pathologically it may be strongly acid or alkaline, dependent upon the kind of putrefactive process in the intestinal canal.

Microscopically, in a normal stool, many bacteria are found, and of these I will speak later. Beside the bacteria the food remnants or undigested food stuffs are recognisable. Normally, the undigestible portions of the food again appear. To this class belong all plant cells of fruits and vegetables rich in cellulose. Starch is detected by its well-known picture. The finding of many starch cells in the stool of adults is pathological and indicative of a diarrhea from the small intestine, or hyperacidity of the gastric juice. After partaking of meat, every stool contains muscle fibers. They are easily to be recognised because of the well-preserved striations and are usually stained with the bile pigment. As their digestion becomes more advanced the transverse striations become less prominent and the corners of the particles become more and more rounded. Muscle fibers in the stool become increased in diseases of high temperature and disturbances of

physiological chemistry. Large connective tissue bands and pieces of elastic tissue are also remnants of animal nourishment.

Fat may be found in the stool after a mixed diet, and its quantity is dependent upon the amount of fat ingested. It may occur saponified, *i. e.*, united with basic salts, neutral, or as fatty acids. It is rarely found in globules, except in a rich milk diet, but it is more frequently seen as needle-like crystals. The fatty needles represent the fat difficult of emulsification and, therefore, of resorption. The stool can abnormally be rich in fats (steatarrhea). This phenomenon is present in diseases of the pancreas, such as carcinoma, fatty necrosis and in acholie. The stool is also rich in fats where there is no resorption of fat possible, because of atrophy of the intestinal mucosa, as in tuberculosis or amyloid degeneration, or where there is a caseation of the mesenteric lymph nodes, or a chronic tubercular peritonitis.

The following salts are found in the feces : (1) triple phosphates, which are usually bile-stained ; (2) calcium oxalate crystals, especially after a vegetable diet ; (3) cholestrin, which is seldom found in the characteristic form. Squamous epithelial cells are seldom seen, but cylindrical cells with nuclei are found. They are most frequently passed in a thin diarrheal stool.

Having thus far referred to substances which are found in the normal feces, I would call your attention to such matter which, if found in appreciable quantities, points toward disease. Charcot crystals, pointed and spindle-form, are sometimes found. According to Leichtenstern, Nothnagel and Boas, they are pathognomonic for intestinal parasites. I recall a case which came to I. Boas, in Berlin, for consultation. An American had been sent to Carlsbad by a New York physician. Boas, in all his cases, systematically examines not only the stomach contents but also the feces. In the examination of the stool, Boas discovered the presence of Charcot crystals, and concluded to put the patient on anthelmintic treatment. The parasite was passed intact. The patient recovered and did not go to Carlsbad.

Mucus can always be determined in the normal adult stool by its chemical reaction. If to that portion of the stool containing mucus, acetic acid be added, it will become opaque and translucent. If present, so that it is easily to be recognised, macroscopically, it denotes a catarrhal condition of the intestines. (1) Mucus may be found surrounding the stool ; (2) it may be equally mixed or incorporated in the fecal mass ; (3) or it may be passed by itself

in large fibrous bands or smaller particles. Mucus surrounding the stool externally has its origin from the large intestine; mucus equally distributed in the stool denotes a catarrhal condition of the small intestine; mucus passed by itself in long bands and in the intervals of a normal stool, especially if accompanied by colicky pain, is pathognomonic of a disease described by Nothnagel and called by him enteritis membranacea or colica mucosa.

In discussing bloody stools it would be well to first call attention to some of the disease processes of which we must think, should it be present : (1) Toxic inflammations and strong drastic cathartics. (2) Traumatisms. (3) New growths, as carcinomata and polypi. (4) Circulatory diseases : (*a*) embolism of the superior mesenteric artery, a condition coming on in disease of the heart and general atheroma. It occurs in the feeble and the aged and is accompanied by all the symptoms of peritonitis, great pain, tense, rapid pulse, meteorism and the passage of blood ; (*b*) general venous hyperemia ; (*c*) congestion of the portal system ; (*d*) small aneurisms of intestinal vessels ; (*e*) venous varicosities, especially in the small intestine ; (*f*) amyloid degeneration of the vessel walls. (5) Diseases of the blood : (*a*) pernicious anemia and leukemia ; (*b*) grave intermittent fever ; (*c*) hemoglobinuria. (6) Diseases of the stomach : (*a*) carcinoma ; (*b*) ulcus ventriculi ; (*c*) acute gastritis. (7) Diseases of the intestine : (*a*) acute enteritis ; (*b*) amebic dysentery ; (*c*) ulcerations from typhoid fever ; (*d*) carcinoma ; (*e*) duodenal ulceration ; (*f*) incarcerated hernia ; (*g*) anchylostomum duodenalis ; (*h*) fissure and hemorrhoids. (8) Constitutional diseases : (*a*) scorbutus ; (*b*) purpura hemorrhagica ; (*c*) phthisis ; (*d*) diabetes mellitus.³ (9) Infectious diseases : (*a*) typhoid fever ; (*b*) yellow fever.

Blood is most frequently encountered in typhoid fever, amebic dysentery, carcinoma of the colon and hemorrhoids. The bloody contents of the stool vary ; blood may be seen microscopically and sometimes macroscopically, because of the brown or red color which it imparts to the stool. In the latter case the origin of the hemorrhage may be determined from the color and arrangement of the blood mixture. A solid, well-formed stool, covered externally, points to hemorrhage at the lowest point of the intestine, and indicates hemorrhoids, but a homogenous, bloody-tinged and hardened fecal mass indicates the seat of hemorrhage in the upper part of the intestinal tract, to the small intestine. The etiological nature of the hemorrhage may point to its localisation. A hemor-

rhage during typhoid fever would be seated in the lowest portion of the ileum; during amebic dysentery, in the large intestine; and after a burn, in the duodenum.

The blood, in view of its passage through the digestive tract, undergoes, because of the digestive, fermentative and putrefactive processes, a series of changes. The important derivatives of the hemoglobin arising are methemoglobin, hematin, hematoidin and urobilin. Urobilin is normally found in the stools, a derivative of the bile pigment, and Kirk⁴ says that hematoidin is identical with bilirubin, a normal bile pigment. The detection of these derivatives is best ascertained by use of the spectroscope, but this means is often, however, very difficult, for the blood corpuscles are quickly destroyed in the stomach and intestinal tract, and the characteristic resorption lines of methemoglobin—hematin—may fail and be replaced by indistinct lines of allied derivatives.

There may be occasion to differentiate between certain drugs and a hemorrhage. So far as iron preparations are concerned, the color alone will decide, but for the bismuth preparations the microscope should be used and the hematin and bismuth crystals can then be easily differentiated.

From the variety of the pus mixture in the dejecta, we draw the same conclusions as to the origin as those at which we arrived in the discussion of blood in the stool. When pus can be detected only microscopically it denotes catarrhal or new-growth changes in the mucosa of the intestines. If pus be evacuated alone it points to a perforating abscess, and if mixed with blood or mucus it denotes either dysentery or ulcerating carcinoma in the region of the rectum or lower colon. The differential diagnosis of the latter two diseases will, of course, easily be made by digital rectal examination.

The detection of pus cells, microscopically, is often difficult, because here also, as with the blood, the digestive processes exercise a destructive action, and it is arduous to differentiate them from animal cells in the food stuffs or leucocytes detached from the mucosa.

In cholelithiasis, gall stones may intermittently, after a preceding colic or not, be emptied into the stools, and in order to find them the stool must be filtered through a narrow-meshed sieve. Their physical appearance and chemical composition is familiar to you. It is important to know whether the gall-stones are faceted or round. Faceted stones are always multiple and occur in the

gall-bladder, whereas round stones are found multiple or solitary and may originate either in the gall-bladder or biliary passages.

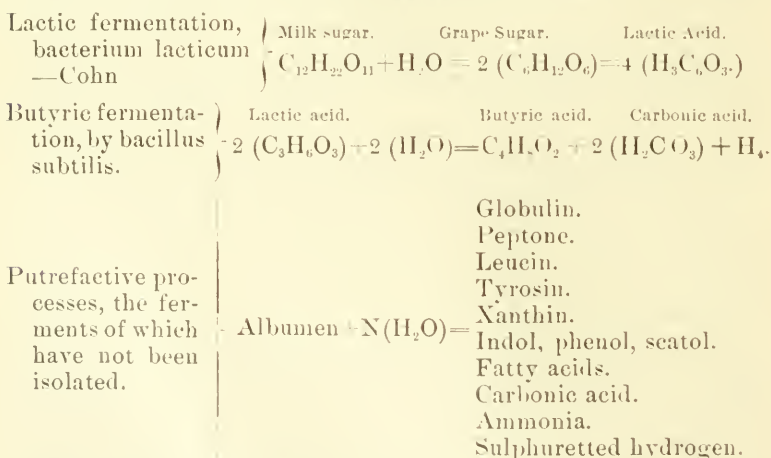
The subject of animal parasites in the feces is of such vast importance that but little justice could be done to it in this paper. Before dismissing the subject I would emphasise the significance of examining microscopically the stool for the eggs and extremities of parasites, and what a hint the finding of Charcot crystals should give to you. In vertigo,⁵ convulsions, epileptiform attacks, psychical disturbances and in grave and pernicious anemias do not forget to look for the animal parasites within the intestinal tract. The prognosis in typhoid fever becomes grave if at any time *ascarides lumbricoides* are evacuated in the stool. The "exitus" is preceded by a fatal hemorrhage or a perforative peritonitis. I saw two such cases end in this manner—one while house physician at the Rochester city hospital, the other in Leyden's ward, at Berlin.

Normally and pathologically, the digestive tract contains many microorganisms. They have a physiological rôle in that they are productive of fermentative and putrefactive changes, by which they influence the body economy. In 1683, Leeuwenhoek, of Delft, Holland, called attention to microorganisms in the mouth and feces, and because of the regularity of contour he called them animalcules. Frierichs, 130 years later, described fungi and *sarcinæ* as inhabitants of the intestinal canal, but did not attach any significance to them. Billroth examined the meconium and found it free from colonies, but in the first golden-yellow stool of the new-born he noticed many bacteria, which he called coco-bacteria. Billroth showed that these so-called vegetations increased in number from the stomach downward and that in the large intestine there were many microorganisms, some showing motility, others not.

With the discovery of plate culture by Koch⁶ the closer study of bacteria of feces obtained a great impetus. In 1883 it was begun by him by the isolation of the cholera vibrio in the stools of cholera cadavers.⁷ Escherich, in 1885,⁸ discovered the *bacillus coli communis* and the *bacillus lactis aerogenes*. He made a classical study of the bacteria of the feces and draws the same conclusions, proven by the growth and isolation of colonies on plate media, which Billroth vaguely described beforehand: (1) that the first golden-yellow stool contains bacteria; (2) that the number and variety increase from the stomach downward.

Bacteria are introduced into the intestine by the mouth, (air, food, sputum, nasal secretions,) by the anus and by the blood. According to Schild,⁹ the early infection of the intestinal tract arises from the anus and occurs from four to seventeen hours after birth. Late infection originates either by the mouth, or anus, or both. The bacteria come partly from the air, partly from the bathing water and seldom from the clothing or vagina of the mother. Escherich and Schild both found bacilli, cocci and fungi in the stool as soon as milk was taken. According to Sucksdorf,¹⁰ the amount of bacteria are diminished by sterilising the food stuffs, but the gastric secretion has little or no effect on their growth. The bacteria, when once introduced into the intestinal canal, find all the requirements for their multiplication : (1) a good medium for their growth ; the proteids are changed to soluble peptones, the fats are emulsified and the starches are transformed into glucose : (2) heat, *i. e.*, the bodily temperature ; (3) moisture.

As before stated, the bacteria play a physiological role. They are the organised ferments and are to be differentiated from trypsin, ptyalin, and the like, which are unorganised ferments. Hoppe-Seyler¹¹ illustrates their action by several examples :



Mannaberg¹² describes fourteen varieties of bacilli, nine of cocci and four of fungi in the feces. Eisenberg¹³ enumerates some twenty-four varieties of microorganisms, of which ten are non-pathogenic and the remainder are pathogenic. Beside their physiological function, a majority of the bacteria are, under certain

conditions, pathological and a few are specific in certain well-known diseases. So long as the *bacillus coli communis* remains in the large intestine it shows no virulence, but when once it wanders from the normal seat of its habitation it produces septic symptoms. It is the productive factor in perityphlitis and appendicitis. It produces sulphrenic abscesses, cholangitis, cholecystitis, peritonitis, pericarditis, meningitis, pyelitis, pyelonephritis, tonsillitis and cystitis. Schnitzler¹⁴ claims that the *bacillus coli communis* always produces an alkaline cystitis in contradistinction to the gonococcus of Neisser, which causes an acid cystitis. A bacillus hard to differentiate from the *bacillus coli communis* and specific for typhoid fever is the *bacillus* of typhoid fever (Eberth). It is found in the feces of typhoid patients and is a constant factor in the production of the disease.

As before mentioned, Koch found in cholera the *vibrio cholera*, and here it may be added that cholera Asiatica cannot be diagnosticated unless this organism can be found and isolated in the stool of a suspected patient. The cholera vibrio is hard to differentiate from a great variety of vibrio found in water and from the Prior-Finkler vibrio of cholera nostra. In phthisical patients the sputum is often swallowed, and because of the absence of hydrochloric acid, usually noted in such cases, the tubercle bacillus enters the intestinal tract, having lost none of its virulence, and a tubercular enteritis or peritonitis may follow. The bacilli in such a stool may be found by spreading some of the feces on a cover glass, fixing and staining either by the Koch-Ehrlich or Gabbet method.

Lesage¹⁵ describes a bacillus of green diarrhea, and Salus¹⁶ a case of green coloring of the stool by the *bacillus pyocyaneus*. Various staphylococci and streptococci are also present in the stool, and they have much to do with terminal infections. Lastly, there were demonstrated to me, in the stool as well as in the stomach contents, two organisms upon which Boas¹⁷ attached diagnostic importance—namely, the *sarcinae ventriculi*, a form of cocci which multiply in all directions and found in gastrectasis, and the so-called faden bacilli in gastric carcinoma.

In connection with the examination of feces, the examination of urine should always be undertaken. It has been shown that aromatic substances, such as cresol and skatol, indol and phenol, are produced by anerobic bacteria on proteids and albuminoid foods. Bauman, in 1880, showed that these aromatic substances

were eliminated in the urine in the form of ethereal sulphates. When found in the urine they are, therefore, an index whether the putrefactive processes in the intestinal tracts are or are not excessive. Indican is derived from indol. Salkowski has found it in the urine in perityphlitis and appendicitis; Braeger in chronic anemia and cachexia; Jaffe in malignant disease of the intestine; Senator in chronic peritonitis and gastric carcinoma. Hester and Smith found it increased during attacks of epilepsy. In stricture of the small intestine, indican becomes very much increased in the urine, whereas in closure of the large intestine it is seldom present. It is, therefore, of great use clinically in determining whether the seat of stricture is in the small or large intestine.

There still remains much to be learned in clinical examination of feces. It is a field rich for scientific work and experimentation, and one in which brilliant results are yet to be obtained.

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400 FRANKLIN STREET.

INVOLUNTARY INTOXICATION FROM A MEDICO-LEGAL STANDPOINT.¹

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ALCOHOLIC excesses, when once established, may be classed under three divisions, as follows: voluntary drinking, producing voluntary intoxication; voluntary drinking, producing involuntary intoxication; involuntary drinking, producing involuntary intoxication. The third division of drunkenness follows the second, and the second the first, unless arrested by heroic medical and legal interference, the same as in the three stages of consumption, where the first rapidly leads to the other two. Under our first division of alcoholics, we find drunkenness more of a vice than a disease, and it should be treated with severe penalties. This class seem to drink for the fun of it, and have a desire to get drunk. When any interference is offered, the reply is that they have a personal right to do as they choose. Such people never stop to think that those living in the same neighborhood and community have personal rights as well.

Under the second division we may class those men and women who drink socially, with no intention of ever becoming under the influence of liquor. A certain proportion of these people, who should soon come to have reason dethroned by the toxic effect of alcohol, on account of the remorse and chagrin that follow, are kept from future drinking and thereafter drunkenness.

In the third division we find men and women who frequently have an uncontrollable desire to take a drink. There is an insane impulse and mania for liquor, which controls the person; the thoughts and feelings are disordered and the power of volition is suspended. Among this class of patients, who properly come under the term dipsomaniacs, the question of medical and legal responsibility is quite unsettled. With these victims the mania is increased with the first drink, the will weakened, and the unexpected, involuntary drunk follows.

The alcoholic is receiving a fair consideration at the hands of medicine, but from a legal standpoint his treatment is not so fair and just, yet apparently necessary.

While medical opinions are said to be given often with a hole in them, the law in regard to drunkenness has apparently a double

1. Read before the Alumni Association of Niagara University, May 12, 1896.

advantage, and the victim may easily escape or be unjustly punished. Different countries have different penalties for drunkenness. The penalties for crimes committed while drunk vary, because there is a difference of opinion as regards their responsibility. It is said that the laws of Greece were such that he who committed crime while intoxicated should receive a double punishment—one for the crime, the other for getting drunk. In the Roman laws we find drunkenness mitigating the penalty for the crime. In Sweden a divorce is granted for inebriety. In Italy the criminal who is intoxicated gets one-third off the sentence. In England and Scotland, a man who voluntarily becomes under the influence of liquor and commits a crime, although not thought of when sober, is considered responsible. In our state we find the following laws :

Section 21, Penal Code, State of New York :

A person is not excused from criminal liability as an idiot, imbecile, lunatic or insane person, except upon proof that, at the time of committing the alleged criminal act, he was laboring under such a defect of reason as either not to know the nature and quality of the act he was doing, or that the act was wrong.

Our courts have decided, *People v. Sprague*, 2 Park., 43 :

Insane Impulses.—If the act complained of was done under an insane impulse, which at the time destroyed the capacity of distinguishing between right and wrong, the party is not responsible.

Section 22, Penal Code, State of New York :

No act committed by a person while in a state of voluntary intoxication shall be deemed less criminal by reason of his having been in such condition. But whenever actual existence of any particular purpose, motive or intent is a necessary element to constitute a particular species or degree of crime, the jury may take into consideration the fact that the accused was intoxicated at the time in determining the purpose, motive or intent with which he committed the act.

Supreme Courts of New York State have decided under this section :

(a) Voluntary intoxication, though amounting to phrensy, is no defense where a homicide is committed without provocation.

(b) Voluntary intoxication is no excuse for crime, but the proof of it may reduce the crime of murder to the second degree, by showing absence of deliberation.

(e) Where intoxication results in a fixed mental disease of some

continuation and duration it will relieve from criminal responsibility.

(f) Delirium tremens, like insanity, if it deprive one of the capacity of knowing right from wrong, saves him from any criminal responsibility for his acts.

Section 200, Penal Code, State of New York :

A physician or surgeon, or person practising as such, who being in a state of intoxication, without a design to effect death, administers a poisonous drug or medicine, or does any other act as a physician or surgeon, to another person, which produces the death of the latter, is guilty of manslaughter in the second degree.

A doctor, merchant, lawyer or priest who is suffering from alcoholic hallucinations, and does not know a bed-post from a rattlesnake, certainly would not know the difference between morphine and baking soda, or carbolic acid and camphorated oil. In this section the physician is held responsible for getting intoxicated, as the question of irresponsibility at the time of committing the act is not apparently considered.

The law says much about voluntary intoxication and little about involuntary intoxication. The great question to be decided and proved is, whether the intoxication was *voluntary* or *involuntary*. Under the third division of alcoholism, that of involuntary intoxication, there are many victims.

Inebriety gradually passes from the voluntary periods of drink to the involuntary. It is impossible for an inebriate to become voluntarily intoxicated when he has repeatedly shown that he had no will power and was beyond self-control. The responsibility of dipsomania must begin when the intoxications are voluntary, and here alone is the proper place for punishment ; and it should be so severe as to prevent the victim from developing the involuntary stages. Our voluntary drinkers, who are responsible for their voluntary intoxications of today, will, by and by, commit heinous crimes in a state of involuntary intoxication, for which they will be irresponsible. The law would not hold a patient responsible for an act committed under ether or chloroform narcosis. Acts from the anesthetised brain of the alcoholic are insane impulses as well. Experience in studying these cases, and from answers given to a uniform set of questions, leads me to the belief that there are many criminals punished for crimes committed while intoxicated, who were irresponsible for their acts. These are the questions

asked men who have been in the habit of getting drunk, but when sober are able, honest and reputable persons :

Q. 1. After intoxication, were you able to recall what occurred while in that state? A. Very seldom, if ever, could I recall anything I did.

Q. 2. Did you ever have a tendency to suicide? A. Yes.

Q. 3. Would you think it just to hold you responsible for acts committed while you were in the midst of a drinking period? A. Not at all. Any more than to hold a person of unsound mind responsible.

A legal gentleman gives this answer to question three : No, not just ; but, perhaps, necessary to the well-being of society. To question one, the majority of the answers of older drinkers was in the negative. To question two, about half of the answers were in the affirmative. To question three, all replied that it would be unjust.

Many alcoholic patients can be properly classed under Horatio C. Wood's definition of insanity : "Insanity is a condition of mental aberration sufficiently intense to overthrow the normal relations of the individual to his own thoughts and acts, so that he is no longer able to control them through his will."

Those who have continued to excess for three years the periodical or constant drinking of alcoholics, are frequently irresponsible for acts committed while under the influence of liquor, as they do not voluntarily become intoxicated, because they have fixed mental disease and because they have insane impulses. A person when intoxicated does things which would be attempted only by insane individuals. Their hallucinations and delusions are as fixed for a time and as completely control them as those which are common to persons mentally deranged from brain lesions. During this period of mental aberration, acts are committed without any forethought or consciousness on their part. They know no more what occurs or what they do than an epileptic during an attack. A mother worships her child, yet drowns it when intoxicated. A husband loves his wife, yet beats her into insensibility when drunk. A son, whom his mother had supported from childhood by days' work, while in the midst of a drinking period, goes home and knocks her brains out. A father kisses his little ones every morning and promises them bread and butter on Saturday when he gets his week's wages; when Saturday comes, gets drunk on his money, reaches home on Monday without a cent, but

in time to drink the milk sent in by kind neighbors to a starving infant. There is no question about the insanity of the person under these circumstances and a thousand more similar ones that might be given. They are irresponsible from a legal standpoint, because they are insane and had no idea of right or wrong when the act was committed. According to law, many such persons have paid the penalty for a crime committed, which they knew nothing about, although they were considered irresponsible at the time, yet they were held responsible for the crime of getting drunk. If getting under the influence of liquor entails such responsibility, the law should enforce a more severe penalty for drunkenness and thereby give society another lift toward preventing it.

A well-known gentleman, after a debauch, always inquired of his friends if he had done anything bad, as he was always worried until he was assured he had done no harm. Frequently the police reports give accounts of some alcoholic who claims to have been the victim of highway robbery, which, after investigation, proved to be without foundation. A drunkard's hallucinations and delusions are of the most dangerous kind—dangerous to himself as well as to others. The danger of self-destruction while under the influence of liquor is manifested in their over-estimated strength and ability to act, wherein they drown because they thought they could swim; or are killed because they had no fear of the locomotive; or commit suicide to keep from falling into the hands of imaginary pursuers; or by jumping from windows when the furniture of the room begins to turn over and is transformed into processions of animals, such as elephants, monkeys and snakes. They are dangerous to others because, when intoxicated, their worst natures have control. Delusions of infidelity in the home circle are present, and by their hallucinations they kill their best friends in trying to escape from imaginary enemies, robbers and particularly the devil.

When a man knowingly incapacitates himself for self-government he is responsible. This the drinker does voluntarily with his first few years of debauches. After this the majority of drinkers involuntarily become intoxicated. The community should allow no man, voluntarily or involuntarily, to enter into a hibernating period and lose all control of his thoughts, words and actions. The lower animals take some means of protection during their seclusion at such times; but the drunkard never, because his natural instincts are benumbed, saying nothing of his intelligence.

When punishment fails to stop a man from drinking liquors or taking any stimulus to excess, the man should be considered as one who has delusions which control him, and held for treatment as one who at times is excitable, dangerous and destructive. Surely the periodic drinker is irresponsible enough to debar him from any responsible position. There is no price large enough to keep such people from taking liquor if it can be had. Family and social ties, position, and honor and fortune, are often sacrificed in satisfying the morbid desire for drink. When an individual is controlled by a delusion, an illusion or hallucination, followed by an insane impulse, if it be only for a few minutes, he is as much irresponsible for things done in that time as though they had lasted several days or months. In *petit mal*, one form of epilepsy, a person has complete loss of consciousness for only a few seconds.

Many drinkers give a history of mental aberration of a few seconds in duration, and express themselves as having observed that there were times when they would find themselves staring at something without any idea as to time. These unfortunates can seldom tell why they take the first drink. Repeated experiences with them have proven beyond a doubt that a drink means a drunk. Previous to and during the drinking period, there seems to be an aura with them similar to that of the diseased epileptic, wherein there is partial or complete loss of consciousness, with mental weakness.

Alcoholism predisposes to epilepsy, and certain forms of *petit mal* seem to predispose to excesses in drink. There are in every community men and women whose better judgment, although weakened mentally and morally, saves them from gratifying morbid appetites and violating the law. In these cases the little judgment is at a premium with them, for as soon as they begin to take liquor they rapidly lose the good-will power they previously possessed, and their impulses become uncontrollable, and he who would commit no greater offense than a misdemeanor without liquor would commit murder by using it.

An intermediate place is required, between the state asylum and the penitentiary, for the inebriate. Here is a case for example: A young man becomes intoxicated and during the drinking period steals several articles which he throws away or he pawns for money. He is honest when not drinking; had never stolen until he began the use of liquor. He repeatedly gets drunk and steals through insane impulses and finally is arrested, and the law says

he shall pay the penalty for larceny by going to the penitentiary. The doctors find it difficult to make out papers of lunacy and the asylums do not care to keep him after he regains complete consciousness, which is usually after a few days. Nothing but the law will restrain these cases for a time necessary for treatment to do them good. Because persons commit crime while under involuntary intoxication it is unjust to say they are criminals, and because they are temporarily unbalanced by drink it does not prove them lunatics. It does give them a clear history of a diseased condition of the body and mind, and should incapacitate them for personal liberty until proper treatment has been administered.

180 WEST CHIPPEWA STREET.

Special Article.

AMERICAN PUBLIC HEALTH ASSOCIATION: A HISTORICAL SKETCH—HISTORY OF THE PREPARATION FOR THE BUFFALO MEETING, 1896.¹

BY WILLIAM WARREN POTTER, M. D., Buffalo, N. Y.

PROBLEMS relating to preventive medicine, and especially those connected with public sanitation, are presenting themselves for solution in constantly increasing numbers and with more forceful accentuation as time advances. Methods and habits of life are constantly changing, causes of disease that existed a century ago are disappearing, while new ones are presenting themselves with a frequency that almost rivals the phases of the moon.

Just as the nineteenth century is drawing near its end, the time seems appropriate for the consideration of many of these interesting problems, hence Buffalo may consider it a fortunate circumstance that the American Public Health Association has appointed its annual meeting for 1896 to be held in this city. This circumstance makes the occasion for presenting the purposes of this organization in considerable detail an appropriate one, and

1. In the preparation of this article I have drawn liberally on information furnished by the secretary of the association, Dr. Irving A. Watson, of Concord, N. H.

what is here offered may assume, for that reason, the form of a historical sketch.

The American Public Health Association was organised in 1872 by a few public-spirited men, who foresaw the propriety of grouping together in one society some of the ablest sanitarians in the country, whose province it should be to inaugurate measures for the restriction and prevention of contagious and infectious diseases, and for the diffusion of a knowledge of sanitary science among the people.

It is interesting to note what remarkable growth this association has developed; for, whereas in 1872 it comprised only a little group of sanitarians who met together in the parlor of a hotel for conference, we find it in 1896 to be the largest public health association in the world, embracing in its jurisdiction the three great countries of the North American continent,—namely, the United States of America, the Dominion of Canada and the Republic of Mexico, representing in the aggregate a population of 85,000,000 of people.

Let us pause a moment and glance at its first meeting, that it may be contrasted at a later period with the one about to be held in Buffalo. Upon invitation a few gentlemen interested in the study of sanitary science met at the New York hotel, in the City of New York, on Friday evening, April 18, 1872, with the avowed purpose of creating a permanent association for promoting public health interests. Those present on this occasion were: Drs. Stephen Smith, Elisha Harris, E. H. Janes, Heber Smith and Moreau Morris, of New York; Dr. Francis Bacon, of New Haven; Dr. Christopher C. Cox, of Washington; Dr. John H. Rauch, of Chicago, and Carl Pfeiffer, Esq., of New York City.

At this meeting it was decided to form a permanent organisation, and the names of several others were added to the list as founders.

The second meeting was held at the Ocean hotel, Long Branch, N. J., September 12, 1872. On this occasion, according to the records, only twelve persons were in attendance. However, a proposed plan of organisation was presented, which afterward was revised and adopted as the constitution of the American Public Health Association. At this session seventy persons, nearly all of whom were physicians interested in sanitary work, were elected to membership. Sanitary topics were discussed, committees appointed, officers chosen, the organisation perfected in consider-

able detail and the meeting adjourned amidst commendable enthusiasm.

The next meeting was held at Cincinnati, May 1, 2 and 3, 1873, and this, for the first time, was dignified with the name of the "annual meeting." The association by this time had begun to manifest considerable activity, and though the records show that but seventeen persons were present at this session, there were several valuable papers read and discussed, and important resolutions were adopted relating to public health topics.

The next annual meeting was held in New York City, November 11, 12, 13 and 14, 1873. Here again several papers relating



HOTEL NIAGARA.

to sanitary science were read, and on the second day of the meeting the following preamble and resolution were adopted :

WHEREAS, The roll of members being called, it was found that the constitutional quorum of twenty-five was not present, and the same difficulty having occurred at all the previous meetings since the organisation of the association, on motion of Dr. J. J. Woodward, U. S. Army, the association was dissolved and adjourned *sine die*. It was then,

Resolved, That the members of the late association present proceed to form an organisation to be called the American Public Health Association.

The original constitution was then amended in several particulars, the most important of which was to make nine members constitute a quorum for the transaction of business. It was also voted

that the association assume all pecuniary liabilities of the late American Public Health Association.

Therefore, according to record, the American Public Health Association, as it now exists, was legally organised November 12, 1873, although it was in fact created April 18, 1872, as before stated.

Since the time of its preliminary meeting at New York, in 1872, it has met in many of the principal cities of the Union as well as in the Dominion of Canada, and it has held one meeting in the City of Mexico.

In twelve years from its initial meeting the association had become so strong and influential that at the St. Louis meeting, in 1884, a proposition was made to include Canada within the territorial area of its jurisdiction, and a change in the constitution to accomplish this end was proposed. It lay on the table for one year and was adopted at the Washington meeting, in 1885, thus giving representation to the Dominion of Canada and its several provinces in the association.

Later it was proposed to interest the Republic of Mexico in the work of the association, and with that end in view, in 1890, the secretary, Dr. Irving A. Watson, of Concord, N. H., was instructed to invite the Government of Mexico and the National Board of Health of that country to send delegates to the Charleston meeting. The invitation was accepted and two delegates from Mexico were present at Charleston, December 16-19, 1890. In 1891 the meeting was held at Kansas City, when a proposition to amend the constitution, so as to admit Mexico and its several states, was presented and it was adopted at the meeting held in the City of Mexico, in 1892.

With great appropriateness this year the president, Dr. Eduardo Liceaga, is a Mexican, and will attend the Buffalo meeting with a number of accredited delegates from the republic of Mexico.

To state the matter in brief, it will be observed from the foregoing résumé that the association has grown in twenty-four years from a small coterie of sanitarians, to be the largest health organisation in the world, embracing in its territorial jurisdiction three great countries, which comprise nearly all of North America.

During this time the association has issued twenty large volumes of annual reports, which contain the papers read and discus-

sions held at its annual meetings; besides, it published in a separate volume the work of one of its committees, entitled Disinfection and Disinfectants, which contains a large amount of original research, and which has taken its place as authority in the literature of the subject. Moreover, it has published the Lomb Prize Essay, over 100,000 copies of which have been distributed. Many of these papers and reports have also been widely circulated in pamphlet form. Since 1894 the association has published its transactions in the form of a quarterly journal, which may be bound uniformly with the preceding volumes, and which is one of the handsomest publications that the *JOURNAL* receives in exchange. The publications of the association alone constitute a valuable library upon sanitation, and may be considered as authoritative in regard to



ELLICOTT SQUARE BUILDING.

public health questions. They are well printed and beautifully bound, and are alone worth more to those interested in the subject with which they deal than is the cost of membership in the association.

It is supposed by many that the association's membership is made up entirely of physicians. This, however, is not the case. On its rolls may be found not only the names of physicians, but also of lawyers, ministers, civil and sanitary engineers, health officers, teachers, plumbers, merchants, business men of various sorts, and indeed almost every profession as well as industrial pursuit is represented in its list of members.

The record of the association from its organisation to the present time has been one of steady and constant progress, while its influence on sanitary legislation and in public health affairs is

beyond limit. It was never so strong as now, and the high character of the organisation makes it desirable to obtain membership in it.

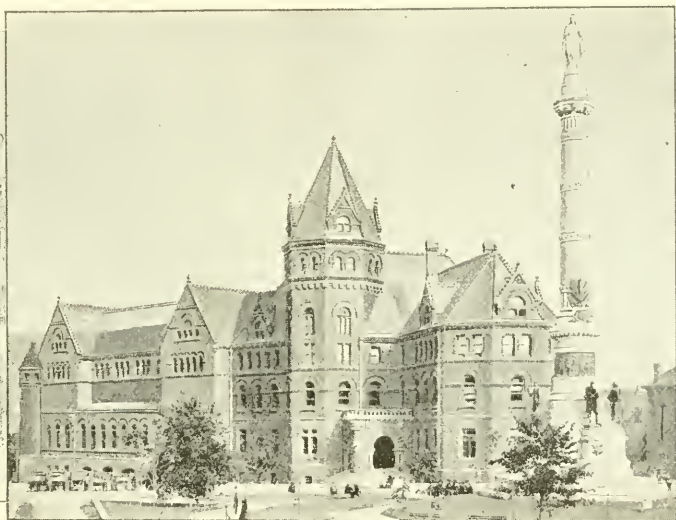
Turning now to the prospective Buffalo meeting, let us say a few words. Last year the association met at Denver, and Dr. Ernest Wende, health commissioner of Buffalo, went as a delegate, authorised by the mayor and the common council to invite the association to hold its twenty-fourth annual meeting in this city. Dr. Wende was successful in obtaining an acceptance of the invitation, and now is most active in endeavoring to fulfill his promise to the association—namely, that it should be adequately and generously entertained during its visit to this city. At Denver he was appointed by the association chairman of the local committee of arrangements for this year, and acting on that authority has in turn appointed a number of committees, each member of which may be said to be, constructively speaking, one of his official staff.

The organisation is as follows: Chairman of local committee of arrangements, Dr. Ernest Wende; of finance committee, Dr. Henry Reed Hopkins; of committee on membership, Dr. Walter D. Greene; on transportation, Mr. Edson J. Weeks; of reception and entertainment, Dr. Lucien Howe; of printing and badges, Dr. William Warren Potter; on halls and meeting places, Dr. Wm. C. Phelps; on hotels, Dr. J. B. Coakley; on exhibits, Dr. Byron H. Daggett; of information, Dr. Eugene A. Smith; executive committee, Dr. E. Wende, chairman; Mr. J. D. Wood, secretary.

Each of these chairmen has selected a number of gentlemen to act with him, who are especially interested in the success of the meeting. The executive committee, consisting of the chairmen of the several committees together with other appointees, meets every Friday, at 4 o'clock, at the Ellicott Club, for conference and discussion of ways and means through which to perfect the organisation and bring success to the enterprise.

To those unaccustomed to deal with these questions it would seem, perhaps, an easy matter to prepare for such a meeting. Such, however, is not the case. The details are manifold, and some of them embrace problems of intricacy and business importance. It requires vigilance, activity and perseverance on the part of the committees to obtain success in such an undertaking, and, moreover, harmony of action and concentration of authority are

essential. These happily have been obtained through the selection of the chairman of the executive committee, a man of affairs who brings himself in touch with the chairmen of the other committees almost daily, and surely as often as once a week. The question of greatest importance in regard to entertaining such an association is finance. Without an ample supply of money little can be accomplished that will prove satisfactory, either to the citizens or to the association. This part of the work, fortunately, has been placed in the hands of Dr. Henry Reed Hopkins, who is progressing most satisfactorily. There is yet, however, great need of contribu-



BUFFALO LIBRARY.

tions, and it is to be hoped that our business fellow-citizens will respond to the appeals sent out for aid in behalf of the project, with a liberality characteristic of the men who are asked to give.

Nothing contributes to business success more than good health, either individual or public. To keep a large city healthful costs money, but it is an investment that pays very large dividends. The cost of sickness is indeed one of the most expensive items that becomes a charge on the private purse. So, too, an epidemic of disease, contagious or infectious, is an expensive luxury for any city to indulge in. In this age of the world there is scarcely an epidemic disease known that is not preventable, and it is the duty

of the citizens to provide the health department with sufficient means to prevent or control such epidemics. There must be just such meetings as the one contemplated in Buffalo, of scientific men to discuss these problems with reasonable frequency, in order that the best methods may be made known to our local health officers. Every one of our business men is interested in this question, and ought to feel a pride in the entertainment of the association on lines commensurate with the dignity and standing both of the city and the visitors. No doubt they will when the importance of the subject is presented in a proper light.

The committee has selected Ellicott Square in which to hold the meetings of the association, where ample accommodations are found, both for the general sessions and for the transaction of business connected with the association. There are adequate committee rooms, assembly rooms, offices and exhibition halls, and altogether the place chosen will be found not only useful but attractive. Beside the regular scientific sessions of the association there will be provided certain social entertainments of an agreeable nature. Among the latter may be mentioned a reception to be given at the Ellicott Club during one of the evenings, an excursion to Niagara Falls, going down to Queenstown on the Canadian side, and returning by the Gorge road on the American side, and a collation provided at Niagara Falls. This will be one of the most attractive and systematically arranged excursions that has ever been given over the route named. The excursionists will return to Buffalo by the Niagara Electric Railway. In addition to these, there will be provided steamboat and trolley rides, as well as other incidental ways of entertainment, none of which, however, will interfere with the regular sessions.

While the business office of the association will be located in Ellicott Square, the Niagara hotel has been chosen as the general hotel headquarters for the visitors. It is well adapted to this purpose, both in its environment and management. It is a little removed from the noisy centers, is easily accessible, and when reached affords all the comforts of a metropolitan hotel, ensconced in almost rural surroundings.

It is desirable that the medical profession of Buffalo and vicinity, together with such other professional and business men as feel interested in the subject, shall make early application for membership. This is one way to manifest interest in the association and an important method of contributing to the success of the Buffalo

meeting. The necessary requisites are good professional and moral standing, an interest in hygiene, the endorsement of two members of the association and the payment of \$5, which is the regular membership fee. The transactions, when published, will be more valuable than the fee for membership.

We bespeak from the friends of public health, hygiene and general preventive medicine everywhere an earnest coöperation



VIEW ON DELAWARE AVENUE.

with the committees headed by Dr. Ernest Wende, in support of the general scheme outlined above, that has for its object the proper entertainment of a learned body of men, who are engaged in a humane work and who deserve most generous treatment at the hands of every public-spirited person in the city of Buffalo.

We conclude this subject by presenting portraits and biographical sketches of the officers of the association who will conduct the Buffalo meeting.

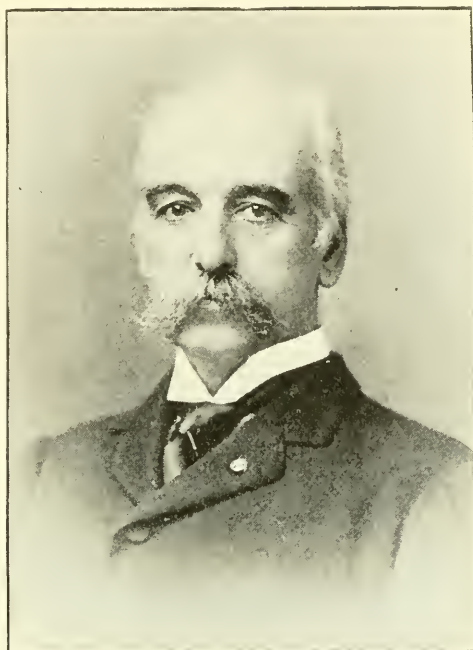
The half-tones are from "Physicians and Surgeons of America," by Irving A. Watson, M. D., Concord, N. H., from which source also the biographies were abstracted.

It is to be hoped that what has been said in this paper will stimulate our readers to an interest in the association, that will be manifested through an attendance at the meeting.



EDUARDO LICÉAGA, PRESIDENT.

Eduardo Licéaga was born October 13, 1839, at Guanajuato, Mexico. He was educated at San Gregorio National College in the City of Mexico, and received several prizes during his collegiate training. He was five years a student at the National College of Medicine, City of Mexico, and received his degree of M. D. January, 1866, and from the Emperor Maximilian a gold medal for having secured the premiums in all the professional courses. He commenced the practice of his profession soon afterward in the City of Mexico, and has remained there ever since. Dr. Licéaga is corresponding member of the Society of Medicine, San Luis Potosi, 1872; titular member of the National Academy of Medicine, 1873, having filled the offices of president and vice-president; member of the Pharmaceutical Medical Society, Puebla, 1874; fellow-laborer member of "Larrey" Medical Surgical Association, 1875; honorary member of the "Sociedad Filoiátrica y de Beneficencia" of the National School of Medicine, 1878; member of the Medical Society of Guanajuato, 1879; corresponding member of the Public Hygiene Society of Paris; is permanent president of the Superior Board of Health of Mexico; member of the American Public Health Association, vice-president, 1893; prefect of the National School of Medicine, 1867-70, and director *pro tempore*; president of the Mexican Medical Congress of Hygiene, 1876-78; director of Maternity and Infants' Hospital, City of Mexico; professor of surgical therapeutics, National School of Medicine; secretary, treasurer and vice-president successively of the Sociedad Filharmonica; professor of acoustics and phonography in the Musical Conservatory, 1868-72; member of the Compañía Lancastrian; member of the Mexican Society of Geography and Estadistics; and is secretary-general of the Second Pan-American Medical Congress to be held in the City of Mexico, November 16, 17, 18 and 19, 1896. Dr. Licéaga is believed to have been the first in the Republic of Mexico to perform with success coxo-femoral resection in a child, obtaining reproduction of the bone and recovery of the functions of the member. He is the author of many valuable medical, surgical and other monographs. He was married December 24, 1870, to Miss Dolores Fernandes de Zanregni, and has four children. At the last meeting of the American Public Health Association, held in October, 1895, at Denver, Dr. Licéaga was elected president, and will officiate at the 24th Annual Meeting in Buffalo, September 15-18, 1896.



ALFRED ALEXANDER WOODHULL, VICE-PRESIDENT.

Alfred Alexander Woodhull was born April 13, 1837, at Princeton, N. J. His father was a physician and his paternal grandfather a clergyman. He graduated from Princeton College, receiving the degrees A. B. 1858, A. M. 1859, and LL. D. 1894. He received the degree of M. D. from the University of Pennsylvania 1859. He first practised his profession at Leavenworth, Kans., and then at Eudora in the same state. In the spring of 1861 he helped to raise a company of mounted rifles in which he was commissioned a lieutenant, but in September, 1861, he was appointed an assistant surgeon in the U. S. army. He served during the war in the field with troops, and as assistant to medical directors, and was acting Medical Inspector of the Army of the James in 1864-65. In March, 1865, was brevetted lieutenant-colonel and attained the actual rank May 16, 1894. Colonel Woodhull is a member of the Association of Military Surgeons of the United States; of the American Public Health association; and a companion of the military order of the Loyal Legion of the United States. He was appointed Medical Director Department of Colorado, July 16, 1895, with headquarters at Denver. He represented the medical department of the United States Army at the Eighth International Congress of Hygiene and Demography, London, 1891; was instructor in military hygiene at the Infantry and Cavalry School, Fort Leavenworth, 1886-90; and was in command of the Army and Navy General Hospital, Hot Springs, Ark., 1892-95. His literary contributions have been numerous and valuable, and he is a gold medalist of the Military Zouave Institution for a prize essay on "The Enlisted Soldier," published in its Journal March, 1887. He married, December 15, 1868, Margaret, daughter of Elias Ellicott of Baltimore. At the meeting in Denver, Col. Woodhull was elected vice-president of the American Public Health Association, and will take an active part in the Buffalo meeting, September 15-18, 1896.



HENRY SEWALL, VICE-PRESIDENT.

Henry Sewall of Denver, Colorado, received his preliminary education at the Wesleyan University, Middletown, Conn., from which he obtained the degree of B. S. in 1876, and at Johns Hopkins University, Baltimore, which granted him the degree of Ph. D. in 1879. He received his medical education at the University of Michigan, taking the doctorate degree in 1888. The Medical Department of the University of Denver conferred upon him the degree of M. D. *adeundem* in 1889. He is professor of physiology in the University of Denver; Assistant Health Commissioner of Denver, and secretary of the Colorado state board of health. He is a member of the American Association of Physicians; of the Colorado State Medical Society; of the Denver Medical Association; and of the Arapahoe County Medical Society. In 1895, Dr. Sewall was elected vice-president of the American Public Health Association and will give active support to the Buffalo meeting.



IRVING ALLISON WATSON, SECRETARY.

Irving Allison Watson was born at Salisbury, N. H., September 6, 1849. He received his preliminary education in the common schools of New Hampshire, and at the Newbury (Vt.) seminary and collegiate institute. His medical education was obtained at Dartmouth Medical College and at the University of Vermont, from which latter he took his doctorate degree in 1871. In 1885 Dartmouth College conferred upon him the degree of A. M. Dr. Watson began the practice of his profession at Groveton, Vt., where he resided for ten years. During this time he served for a number of years as Superintendent of Schools, and was twice elected to the legislature. He was instrumental in securing the passage of the law creating the state board of health, and was chosen secretary and executive officer upon its organization, September, 1881. He removed to Concord in the latter year, and was made executive officer of the state board of lunacy, when the latter board was organized in 1889. Dr. Watson is registrar of vital statistics of New Hampshire; president of the state board of cattle commissions; and has been secretary of the American Public Health Association since 1883; was vice-president of the International Conference of State Boards of Health, 1894; is a member of the American Medical Association; is an honorary member of the Academia Nacional de Medicina de Mexico; was assistant secretary-general of the First Pan-American Medical Congress; is a member of the Société Française d'Hygiène; of the medico-legal society of New York; of the New Hampshire Medical Society, and of his local medical societies. He is also a registered pharmacist of the State of New Hampshire. Dr. Watson has compiled and edited the New Hampshire Registration Reports since 1881; the reports of the state board of health, thirteen volumes; the transcripts and journal of the American Public Health Association since 1883; and the Reports of the Commissions of Lunacy of New Hampshire, five volumes. He has also been a frequent contributor to the medical periodical press, especially on the subjects of public sanitation and hygiene. He married, in 1872, Lena A., daughter of Gilman Farr of Littleton, N. H., and has one child, a daughter, Bertha M. Watson. Dr. Watson is the executive officer of the American Public Health Association, and will take up his headquarters in Buffalo several days before the meeting, to assume the administration of its details.



HENRY DWIGHT HOLTON, TREASURER.

Henry Dwight Holton of Brattleboro, Vt., was born at Rockingham, Vt., July 24, 1838, and was educated at Saxton's River (Vt.) Academy. He was a pupil of Dr. J. H. Warren of Boston, and Dr. Valentine Mott of New York, and graduated from the University of New York in 1860. He practised first in Brooklyn, then at Putney, Vt., and has lived in Brattleboro twenty-seven years. He is a member of the Connecticut River Medical Society, of the Vermont Medical Society, of the American Medical Association, of the British Medical Association, of the American Public Health Association, and of the Gynecological Society of Boston. He has been president of local medical societies, of the Vermont Medical Society, and vice-president of the American Medical Association. He is the author of several important medical papers that have been published in society transactions and medical journals. He was for 14 years professor of therapeutics and general pathology in the medical department of the University of Vermont. In 1884 he was elected to the state senate, and in 1888 he represented his town in the Vermont legislature. He has been three times elected by the legislature trustee of the University of Vermont, the term of office being six years; was appointed by the Governor as Commissioner to represent the State in the National Nicaragua Canal Convention; also a Commissioner for the Columbian Exposition. He was president of the board of trustees of the First Pan-American Medical Congress, and has held several local public offices. He married, November 9, 1862, Ellen J. Holt. Dr. Holton was elected treasurer of the American Public Health Association at its meeting in the City of Mexico, December, 1892, and has held the office since that date. He will take an active part at the Buffalo meeting.

Progress in Medical Science.

PEDIATRICS.

REPORTED BY MAUD JOSEPHINE FRYE, M. D.,

Clinical instructor in diseases of children, Medical Department, University of Buffalo.

ANTITOXIN IN PRIVATE PRACTICE.

AS A SUPPLEMENT to the number of July 1, 1896, *Pediatrics* publishes the report of committee appointed by the American Pediatric Society to investigate this subject. The committee, consisting of Drs. L. Emmett Holt, W. P. Northrup, Joseph O'Dwyer and Samuel S. Adams, submitted to the society, at its eighth annual meeting at Montreal in May, a report, of which the following is a summary :

1. The report includes returns from 615 physicians. Of this number more than 600 have pronounced themselves as strongly in favor of the serum treatment, the great majority being enthusiastic in its advocacy.

2. The cases included have been drawn from localities widely separated from each other, so that any peculiarity of local conditions, to which might be ascribed the favorable reports, must be excluded.

3. The report includes the record of every case returned, except those in which the evidence of diphtheria was clearly questionable. It will be noted that doubtful cases which recovered have been excluded, while doubtful cases which were fatal have been included.

4. No new cases of sudden death immediately after injection have been returned.

5. The number of cases injected reasonably early, in which the serum appeared not to influence the progress of the disease, was but nineteen, these being made up of nine cases of somewhat doubtful diagnosis ; four cases of diphtheria complicating measles, and three malignant cases in which the progress was so rapid that the cases had passed beyond any reasonable prospect of recovery before the serum was used. In two of these the serum was of uncertain strength and of doubtful value.

6. The number of cases in which the patients appeared to have been made worse by serum were three, and among these there is only one new case in which the result may fairly be attributed to the injection.

7. The general mortality in the 5,794 cases reported was 12.3 per cent.; excluding the cases moribund at the time of injection or dying within twenty-four hours, it was 8.8 per cent.

8. The most striking improvement was seen in the cases injected during the first three days. Of 4,120 such cases the mortality was 7.3 per cent.; excluding cases moribund at the time of injection or dying within twenty-four hours, it was 4.8 per cent.

9. The mortality of 1,448 cases injected on or after the fourth day was 27 per cent.

10. The most convincing argument, and to the minds of the committee an absolutely unanswerable one, in favor of serum therapy is found in the results obtained in the 1,256 laryngeal cases (membranous croup). In one-half of these recovery took place without operation, in a large proportion of which the symptoms of stenosis were severe. Of the 533 cases in which intubation was performed the mortality was 25.9 per cent., or less than half as great as has ever been reported by any other method of treatment.

11. The proportion of cases of broncho-pneumonia—5.9 per cent.—is very small and in striking contrast to results published from hospital sources.

12. As against the two or three instances in which the serum is believed to have acted unfavorably upon the heart, might be cited a large number in which there was a distinct improvement in the heart's action after the serum was injected.

13. There is very little, if any, evidence to show that nephritis was caused in any case by the injection of serum. The number of cases of genuine nephritis is remarkably small, the deaths from that source numbering but fifteen.

14. The effect of the serum on the nervous system is less marked than upon any other part of the body; paralytic sequelæ being recorded in 9.7 per cent. of the cases, the reports going to show that the protection afforded by the serum is not great unless injections are made very early.

ACTION OF THE SOCIETY UPON THE REPORT.

At the close of its presentation, the society voted to accept the report of the committee, and after a full discussion it was decided to embody its conclusions in the following resolutions:

1. *Dosage.*—For a child over two years old, the dosage of antitoxin should be in all laryngeal cases with stenosis, and in all

other severe cases, 1,500 to 2,000 units for the first injection, to be repeated in from eighteen to twenty-four hours if there is no improvement; a third dose after a similar interval, if necessary. For severe cases in children under two years old, and for mild cases over that age, the initial dose should be 1,000 units, to be repeated as above if necessary; a second dose is not usually required. The dosage should always be estimated in antitoxin units, and not of the amount of serum.

2. *Quality of Antitoxin.*—The most concentrated strength of an absolutely reliable preparation.

3. *Time of Administration.*—Antitoxin should be administered as early as possible on a clinical diagnosis, not waiting for a bacteriological culture. However late the first observation is made, an injection should be given, unless the progress of the case is favorable and satisfactory.

The committee was appointed to continue its work for another year, and was requested to issue another circular asking for the further coöperation of the profession, this circular to be sent out as soon as possible, in order that physicians may record their cases as they occur through the coming year.

PASTEURISATION OF MILK.

FREEMAN (*Archives of Pediatrics*, August, 1896,) has devised an apparatus whereby the Pasteurisation of milk can be done at a temperature ranging from 65° to 70° C. The same steriliser can be used for rapid cooling, an important feature of low temperature sterilisation and one often overlooked. The low temperature used destroys almost all the ordinary air bacteria which occur commonly in milk, and also the bacillus tuberculosis, the bacillus typhosis, the bacillus diphtheria, and many other pathogenic bacteria. It causes no change in the taste of the milk and avoids those chemical changes which are produced by higher temperatures. The milk should only be used during the twenty-four hours following the Pasteurisation.

SURGERY.

CONDUCTED BY JOHN PARMENTER, M. D.,
Professor of anatomy and clinical surgery, University of Buffalo.

SPRAINED ANKLES.

CROOK, J. L., (*International Journal of Surgery*, July, 1896,) contributes an interesting but brief article upon the treatment of sprained ankles. After touching briefly upon the pathol-

ogy and symptomatology of this condition, he describes his method of dealing with it. The procedure employed is a modification of that previously advocated by Gibney, who claimed for it that it "involves no loss of time, requires no crutches, and is not attended with any ultimate impairment of functions." Crook's method, given in his own words, is as follows :

A number of strips of rubber adhesive plaster about nine to twelve inches in length and of appropriate width are prepared. Beginning at the outer border of the foot, near the little toe, the first strip partially encircles the joint and ends behind the foot. The second strip is begun on the inner side of the foot and is applied on the opposite side, nearly meeting the first strip behind. Other strips are applied in like manner, each one overlapping the last, and crossing its fellow of the opposite side in front, so that the ankle is snugly and smoothly encased, care being taken not to completely encircle the joint with any one strip. After having bound the foot firmly, it is well to add one broad strip running around the foot, from the internal side of the leg down the internal side of the foot, across the plantar surface and up the outside of the leg, "as much as possible to take the place of the middle fasciculus of the external lateral ligament which is so often the one most injured." It is a good plan to place a pad of absorbent cotton over the external malleolus and in the fossa below, to prevent undue pressure and chafing. Any one of the injured ligaments may receive a similar reinforcement from an extra strip. I then apply a roller smoothly over the entire surface, allowing it to remain until the plaster takes firm hold.

The writer then cites several cases illustrating the value of his method. His favorable experience leads him to extol this treatment, a feeling in which all surgeons who have given the procedure a trial will concur.

PYLEPHLEBITIS SUPPURATIVA.

MYNTER (*International Journal of Surgery*, April, 1896,) describes a case of pylephlebitis suppurativa occurring in a patient suffering from appendicitis. Operation upon the fifth day revealed an appendix seven inches long, totally gangrenous and perforated at its tip, which lay in the pelvis. Death occurred on the fourth day following operation, the symptoms on the last day being as follows: Temperature, 101° ; pulse, 92; abdomen soft, but tender to pressure upward; no symptoms of peritonitis; no swelling of liver or spleen; had had a large black stool. Icterus was marked,

urine scanty and full of bile pigment. Patient became semi-comatose with stertorous respiration and vomited continuously, in spite of irrigation, a dark fluid, and finally died in coma. No post mortem was permitted, but the diagnosis seems to the writer to be fully justified by the history and symptoms. He regards the disease as generally secondary to suppurating processes in the abdomen, the portal vein becoming infected, either through the formation of septic thrombi in its radicles, or from emboli in the larger branches, producing retrograde thrombosis, followed by phlebitis. Appendicitis is the most frequent cause through infection of a mesenteric vein when the mesentery or omentum is adherent to the gangrenous appendix. Other causes, however, may be found in gastric and intestinal ulcers, phlebitis of the hemorrhoidal veins, dysentery, abscess of the spleen, suppurating mesenteric glands, or localised peritonitis around the hepaticoduodenalis ligament. The liver itself may be the starting point of the disease. The symptoms of pylephlebitis are fairly well pronounced and depend less upon occlusion of the portal system than upon septic and thrombo-pyemic, preceded by the symptoms of the original disease which caused the phlebitis. They include pain, violent chill, painful enlargement of the liver and spleen, icterus, bloody vomiting and peritonitis, and the more in number these symptoms are present the more probable is the diagnosis. The malady is uniformly fatal and, therefore, treatment is unavailing.

CONSERVATIVE OPERATIVE TREATMENT OF SACCULATED KIDNEY—
CYSTONEPHROSIS.

FENGER, (*Annals of Surgery*, June, 1896,) in a masterly article, makes a strong plea for more conservatism in dealing with this form of kidney lesion. After considering the mechanical and pathological aspects of cystonephrosis, he describes an illustrative case and, as a result of his study of, and experience with, this condition, he reaches the following conclusions :

Conservative surgery in cystonephrosis demands a number of successive operations.

I. *Hydronephrosis*.—(1) Lumbar nephrotomy, followed by packing and aseptic drainage. If urinary fistula remains after three months.

(2) Operation for the stenosis—namely, for (*a*) stricture of the ureter, or (*b*) valve-formation and oblique insertion. If the fistula

still remains with the ureter patent, which occurs only when there is obstruction above the ureter.

(3) Operation for sacculated kidney as designed by me—namely, bisection of the kidney and division of the partition walls between sacs. When the entire territory of the sac is thus laid open and the ureter is patent, as demonstrated by free passage of bougies from the kidney to the bladder, and by free passage of injected fluid, then

(4) Closure of the fistula by reunion of the bisected kidney. This last operation may confidently be expected to be followed by disappearance of the fistula. It should not, however, be done until the pyelitis, if present, has been cured by thorough irrigation from the kidney to the bladder. Küster observed a case of nephrotomy in which the fistula closed spontaneously, with patent ureter, but the pyelitis persisted, giving an incomplete cure. I have seen, however, that when we closed the fistula before the pus has disappeared entirely from the urine, the pus in the urine having remained unchanged in amount for a considerable time, that the closure of the fistula acts as a curative measure and causes the pyelitis to cease. Is it by exclusion of air or by cessation of irritation of the drainage-tube, the cause of the pyelitis having been removed, as shown in my two cases reported in a former paper?

In unilocular hydronephrosis the operation for bisection of the sacculated kidney is, of course, not required, and only nephrotomy, the operation for valve-formation in the ureter, and that for closure of the kidney, are needed.

II. *Pyonephrosis*.—(1) Lumbar nephrotomy, followed by drainage and local treatment of the pyelonephritis. When the fistula persists, when considerable healthy urine passes through it and the kidney has retracted to a reasonable degree,—that is, in two or three months.

(2) Search for the obstruction, and operation to remove it. (a) Stricture of the ureter and valve-formation at its pelvic entrance. If this condition, with a ureter patent from pelvis to bladder, still does not prevent the passage of large quantities of urine through the lumbar fistula, obstruction above the pelvis should be suspected, and (b) operation for sacculated kidney, with bisection and division of the partition walls of the calyces and of the branches of the ureter. When the whole territory of the secreting kidney tissue is thus an unimpeded connection with the

bladder, and still spontaneous closure does not take place, although the pyelitis is almost cured, the final step to effect closure of the fistula should be taken—namely,

(3) Closure of the bisected kidney, by loosening the adhesion of its two halves to the abdominal wall and by suturing the kidney substance together.

Nephrectomy, like amputation, is a short and summary way to deal with the diseased organ or limb. The loss of a kidney, even if half its function remain, may be more dangerous to life than the loss of an arm or a leg. At the present day we would not think of sacrificing an extremity which might be of even partial use, but kidneys have been sacrificed by the hundreds, as is shown by the number of cases of primary nephrectomy in cystonephrosis (pyo- or hydronephrosis). It is impossible to estimate how many of these kidneys might have been saved by conservative operation.

Conservative operation, to save a cystonephrotic kidney, requires a hard struggle, many operations during a long period of time, and a great deal of energy and patience on the part of both patient and surgeon; but the case above detailed demonstrates that when this course of treatment has to be carried out, because nephrectomy would mean death, a final success can be obtained and the patient be saved from the dangers of, and the social misery attendant upon, an abundantly secreting urinary fistula.

NOTE ON THE USE OF ANTITOXIN.

By DR. A. DAGENAIS, Buffalo, N. Y.

ON A RECENT visit to Paris the opportunity was offered me by Dr. E. Roux, successor of Pasteur, to visit l'Hopital des Enfants Malades, where Dr. Roux's serum (antitoxin) is in constant use, as it may be required in cases in this hospital. I there met Dr. Petit, assistant of Dr. Sylvestre, who has charge of the diphtheritic patients, who kindly pointed out certain details with reference to the administration of antitoxin that I communicate to the readers of the JOURNAL, trusting they will be of considerable interest to them, as they were to me.

Two quarantine buildings have been erected, separated from the main structure of the hospital, which is a very large institution. These separate buildings are only one story high, clean to perfection, well lighted and ventilated. Two rooms are reserved

for the incoming patients that are brought in from a few hours to a few days after infection.

They are first given an injection, after which the results are constantly watched by both physicians and nurses. No other remedies are used. There is a constant flow of steam from boiling water, creating a moist atmosphere in the room, a simple mouth wash of carbonate of soda, and that is all.

The quantity of serum injected is from 10 to 20 cm. ; sometimes 50 cm. are given, but this is very seldom. When they receive at the hospital neglected cases, a second injection is occasionally needed by such, but this is never done under twenty-four hours after the first dose is injected. The injections are made over the abdomen. Odunt's tubes are generally used, or Sylvestre's, which are a modification of Odunt's.

As a matter of fact, the results of the use of the serum, according to careful observations, have simply reduced a most dreaded disease to one of comparative freedom from direful results. The simplicity of this management impressed me deeply, and its successfulness cannot be challenged.

473 VIRGINIA STREET.

SIMPLE DIARRHEA.—The indications are (*Canadian Practitioner*) to first remove by purgatives the irritating and decomposing contents of the intestines. This is best done by giving calomel in small doses, say one-tenth of a grain, frequently repeated, or by a full dose of castor oil.

The second indication is to withhold all food which would be likely to undergo fermentation and add to the existing toxemia. Milk and other foods should be absolutely prohibited. The child should be allowed to take pure water quite freely. Barley water, to which a little white of egg or sugar has been added, may be given, and later whey may also be given.

Third. If ptomaines are thought to be present in the lower bowel, it would be well to irrigate after each movement of the bowels, using a warm normal salt solution (1 dram. to one quart), about one pint at a time.

Finally, such drugs as retard fermentation, *e. g.*, bismuth subnit., grs. x., every two or three hours; or soda benzoate in 4-grain doses in water every two hours.—J. Lewis Smith in *Pediatrics*, July, 1896.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITORS:

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

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No. 2.

OPENING OF THE COLLEGES.

THE month of September generally marks the beginning of the medical academic year; at least we believe the majority of medical colleges are thrown open for work some time during this month, though they for the most part select the latter part thereof in which to begin the year's curriculum. At all events, before the next issue of the JOURNAL the majority of the medical colleges east of the Alleghany mountains will be under full headway.

It is a matter of extreme congratulation on the part of the friends of improvement in medical education that most of the colleges within the territory named have established a four years' course of medical study, and this, too, in most instances, in advance of any statutory requirements making this standard authoritative. This is in striking contrast to the condition that existed ten years ago, or even less, when these same schools, for the most part, demanded but two years' collegiate instruction upon which to issue a diploma.

The extension of time by no means represents the only advance that has been made in medical college training. Clinical instruction has been pushed forward to the first place in the curriculum of medical teaching, laboratories have been established, in which chemistry, physiology, biology, bacteriology and other branches of the abstract sciences are taught; recitation courses have been instituted; demonstrations by manikins, drawings, plates and casts and in the anatomical room have been further perfected; clinical teaching of midwifery has been insisted upon, and didactic teaching has been relegated from the place of first importance that it

formerly held to a position subordinate and quite secondary to the foregoing category. These and other improvements in medical teaching, not necessary to mention here in detail, are such as to accentuate the last decade of the nineteenth century as the most progressive period in the history of medicine, and to lay the foundation for an auspicious beginning of the next century of medical history.

No careful observer will attempt to deny that the medical examining and licensing boards in the several states have played an important part in bringing about many of these reforms; nor can it be disputed that they will continue to exercise a constantly increasing influence in advancing the standards of medical teaching as time moves forward. This, too, notwithstanding the fact that the finger of derision is pointed at them, or the stings of criticism are leveled at their work, even from sources that could not have been anticipated, and whose attempts at weakening their influence might better be directed toward strengthening their efforts to elevate the standard of American medical teaching and to make the American diploma respected at home and abroad.

It is interesting, however, to note that these criticisms for the most part come from a few exceptional men who have a gift for loud speech, and fancy themselves aggrieved because they cannot overstep the statutory provisions with a seven league boot stride, defy all attempts at restraint and freely roam about the country plying the practice of their specialties at watering places or summer homes, regardless of state boundary lines or other geographical limits, to their towering hopes or soaring ambitions.

It is our special purpose, however, at this time to point to another side of this question and to which we will now address ourselves. In order that students may have a full understanding of the state control of medical practice and gain a proper respect for the salutary provisions of medical police laws, we think it would be wise for medical faculties to designate at least one of their number to address their students, either at the opening of the college course or at an appropriate time during its progress, on this subject. Whenever there is a radical change in a system that affects a considerable number of intelligent persons, as is the case with the introduction of state medical examinations for license to practise medicine, it is important that those most interested by such change shall be made acquainted with all the facts connected with it. Whenever this has been carefully done the result has been beneficial.

Two years ago Prof. F. Whitehill Hinkel, M. D., of Buffalo, chose as the title of an introductory address to the forty-ninth course of lectures at the medical department of the University of Buffalo, "A review of the relations between the state and the medical profession in New York." This address was a careful analysis of the present status of these relations, and surely did not fail to exercise a useful influence over the classes in that college during the academic year in which it was delivered. Again, Prof. Willis G. Tucker, M. D., of Albany, chose as the subject of his opening address to the Albany Medical College course last year, "State control of medicine." He, too, considered this subject in great detail and explained it fully to his hearers. The effect of such instruction cannot be otherwise than good. It tends to increase the respect of the student for the laws pertaining to education and contributes to the efficiency of the school in which he is receiving instruction. Moreover, it also serves to create that discipline which should be as much a part of medical teaching as of other collegiate instruction.

The two medical colleges in Buffalo each has wisely entered upon a four years' course, which has been heretofore announced in these columns and which, too, has been distinctly set forth in their annual announcements lately published. It is, however, a matter of comment that but one medical college in the state of New York—Syracuse University—is a member of the Association of American Medical Colleges. Now that most of them have adopted four years' courses it is to be hoped that they will unite with this association.

Finally, it may be remarked that the outlook to the friends of improvement of medical education in this country is most encouraging. The steadfast support given to state control in medicine by every reputable magazine in the country, the unity of feeling and action between medical colleges and state medical examining boards, and the healthy atmosphere surrounding the field and everywhere permeating its furrows and corners, bespeaks an auspicious beginning for the history of American medicine that will be written in the twentieth century.

THE RESIGNATION OF DR. LOVE

DR. I. N. LOVE, of St. Louis, as stated in another column, has resigned the chair of clinical medicine and diseases of children that he has held since the Marion-Sims college of medicine was founded.

Dr. Love is an original thinker and a forceful speaker. As a teacher his influence was weighty, and he will be missed in the college where his popularity was great and deserved.

In the *Medical Mirror* for July, 1896, Dr. Love comments as follows on his separation from the college :

The editor of this journal, after having served as a member of the faculty of the Marion-Sims College of Medicine from the beginning, being one of the original charter members of the faculty ; having seen the college develop until it is now recognised as one of the leading medical colleges of the West and South, has tendered his resignation.

He has felt for two or three years past that his duty to himself and his own best interests lay in this direction, but a hesitancy in withdrawing from pleasant association with his colleagues until the success of the institution was secure, has postponed this action. In his letter of resignation he expressed his regrets and a warm personal regard for the faculty individually and collectively, and announced that his private practice, connected with his conduct of the *Medical Mirror*, was such as to demand a more complete concentration than was possible by a continuance of college work.

The resignation was accepted, accompanied by expressions of appreciation and good wishes. And now, being relieved to a degree of the inconvenience of having too many irons in the fire, the editor feels that the *Medical Mirror* will be the gainer.

When he established the *Medical Mirror* six years ago he announced that he had started upon a life-work, and this determination has been strengthened as time has passed. He is ambitious to make the *Medical Mirror* not only one of the best medical magazines in the world, but to have it read by more doctors than any other.

Plans that are under way now will soon be consummated in the direction of the accomplishment of this end. In saying good-bye to the Marion-Sims college of medicine and its faculty, the editor of the *Mirror* desires to express, in most emphatic manner, the hope that, as the years come and go, the banner of the Marion-Sims college may never be furled ; that her reputation may go on and on ringing round the world, a crystallisation of higher medical education and the best good of the profession. To the faculty he would say, individually and collectively, May the Lord love you and not call you too soon.

THE Convalescent Dinner Society is a London association which undertakes the duty of granting in well-authenticated cases, in which sickness has reduced the strength necessary to return to work, an order for fourteen daily dinners. Such orders have been granted to nearly one-thousand convalescents during the last year.—*Chicago Medical Recorder*.

Items of Interest.

AT THE meeting of the American Medical Association at Atlanta, May, 1896, the report of the board of trustees of the American Medical Association for the eight months ending December 31, 1895, was presented as follows :

Gentlemen—The trustees beg leave to present the following report for eight months ending December 31, 1895.

This report covers but eight months, owing to the change of the fiscal year :

RECEIPTS.

On hand May 1, 1895..	\$ 123.96
Bank collections,	1,047.42
Advertisements,	10,307.67
Office subscriptions,	1,280.31
Reprints,	1,328.01
Sales and presswork,	1,059.65
Total,	\$15,147.02
Treasurer,	9,459.93
	\$24,606.95

DISBURSEMENTS.

Deposited with treasurer,	\$ 557.00
Pay-roll, mechanical department,	8,177.94
Paper	3,988.61
Rent	1,000.00
Office salaries,	3,790.00
Editorial account,	1,915.89
Postage,	1,020.51
Reporting,	402.40
Binding	184.00
Commission,	638.85
Express,	23.75
Miscellaneous, insurance, taxes, lighting, etc.,	1,624.17
Engraving,	274.79
	\$23,597.91
Balance on hand,	\$1,009.04
Treasurer had a balance December 31, 1895, of	9,075.94

Making a total balance of \$10,084.98

We feel confident you will agree with us that this is a most excellent showing, when we consider the financial condition of the country

and the radical change in the policy of the *Journal* instituted at the last meeting. A careful analysis has demonstrated that this policy has reduced the amount which would have been received from advertisements something over \$3,000, but we are gratified to report that the measures to secure new members which have been instituted by the trustees, and so ably carried out by the *Journal* editor, have more than made up this deficiency. The members of the Association, May 26, 1894, numbered 4,032; May 1, 1896, 4,989. The issue of the *Journal* at the former date was 4,876, at the present, 6,548, making a gain in membership in two years of 950 and requiring an increased issue of 1,672. At present there is due the *Journal* from subscribers \$1,400: from advertisers, \$2,400.69. Since the first of the year the *Journal* office has been moved to the Occidental building, at 61 Market street, an excellent fire-proof building, where it occupies commodious quarters upon the third floor. The previous quarters were dark, did not afford sufficient space for the work, and the property was constantly subject to danger of loss from fire. The present quarters entail an increase in cost for power of nearly \$60 per month. A careful study of the situation caused the trustees to feel that this change was a wise as well as a necessary one. Since the beginning of the year it has been necessary to procure an electric motor at a cost of \$350, new type at \$900, and a folder has been ordered which will cost \$1,200. The trustees have under consideration an increase in size of the *Journal*, some eight pages, which will permit a review of the American medical literature as is now done of foreign material, and other important improvements which will add to its value. The trustees feel that it will not be amiss to direct the attention of your body to the fact that all the printing and stationery for the Association is now furnished through the *Journal* office. The expenses of the 1893 meeting were \$1,526.85: 1894, \$2,134.91; the 1895, \$981.85: the greater part of this large reduction in expenses has been due to the changed policy and the more careful supervision of the disbursements.

The improved outlook, the increasing revenue and the lessening need for equipment renders it desirable that steps should be taken to secure permanent quarters. With this object in view, the trustees would respectfully request that permission be granted them to establish a building fund, into which should be paid such portion of the surplus, at the end of each fiscal year, as may be deemed by the trustees wise and expedient; such sums to be invested until a sufficient amount has been secured to enable them to procure suitable property.

We would suggest that members of the Association who have been upon the list for forty years and over should be entitled to be made honorary members and receive the *Journal* free of cost.

In conclusion, the trustees would express their appreciation of the

untiring efforts of the editor and the *Journal* employees to advance its interests.

Respectfully submitted,

A. GARCELON, *President*.

JOS. EASTMAN,

E. E. MONTGOMERY,

J. T. PRIESTLEY,

E. F. INGALS,

D. W. GRAHAM,

J. E. WOODBRIDGE,

I. N. LOVE.

The foregoing is a gratifying exhibit of the progress the *Journal* is making.

In this connection it is interesting to note that the *Journal* some time ago, under direction from the association, requested a vote from each member as to what city they favored for the permanent location of the *Journal*. The vote as reported stood as follows: Chicago, 2,128; Washington, 810; New York, 25; Baltimore, 4, with a few scattering votes. This, of course, means that the *Journal* will remain at Chicago, which is its most appropriate home.

THERE is a growing disposition among state and local boards of health to improve their efficiency by holding frequent conferences. This is a most commendable plan and cannot fail to prove of great benefit to commonwealths and municipalities. In this connection the following, from the *Atlantic Medical Weekly*, will prove of interest:

Dr. Irving A. Watson, of Concord, secretary of the State Board of Health, has sent a communication to the different boards of health throughout New Hampshire, suggesting that they hold a conference at some time during the present summer. He says:

"In looking at some of the sources through which the public health interests of the state might be materially benefited, it has occurred to our board and also has been suggested by municipal health officers, that a conference of the members of the health departments of our several cities be held at some convenient time and place (perhaps at The Weirs in the latter part of September,) for the purpose of considering questions intimately connected with city health work. We believe that a day might be very profitably devoted to this subject. We shall write all the city health boards a letter similar to this, and if their replies are favorable, a day will be selected and a suitable program arranged. We would also suggest the formation of a permanent organization of municipal boards of health. Please inform us if this proposed conference and organization meets with your approval. We also invite suggestions."

Dr. Watson is likewise secretary of the American Public Health Association that meets in Buffalo, September 15-18, 1896, and has shown himself to be a most capable and efficient officer as well as a sanitary expert of distinction.

PAJOT, the famous French obstetrician, who has lately died, was about as noted for his wit as for his professional skill. It has been stated, indeed, that his talent for epigram rather hindered than promoted his social success and that it caused his exclusion from the academy. The epitaph that he wrote on Civiale, the inventor of lithotrixy, illustrates his penchant for mots, some of which were not so harmless as the following :

For Civiale who's dead and gone
Though sympathetic tears may gush,
Set not upon his grave a stone
Which he would surely rise to crush.

On his study table, amid a curious collection of bric-a-brac, stood a fragment of a shell bearing the following inscription : Presented by His Majesty, the King of Prussia, in my consulting room, January 9-10, 1871.

Pajot in his lectures was sometimes sarcastic against *la belle mère*. "As soon as the child is born," he used to say to his class, "lay it on a table and not on a chair. If you neglect this hint, your patient's heavy mother is likely to come and sit upon it."

Besides the myriad of fellow-creatures whom he ushered into the world, it is asserted that Pajot prevented sixteen desperate mortals from quitting it. A skilful angler, he was wont to spend his nights in a boat under the pont Marie, where would-be suicides often interrupted his sport. For his life-saving exploits he was nicknamed by Tardieu the Newfoundland dog of the faculty.

IT IS WELL KNOWN that Dr. Thomas Addis Emmet, of New York, has nearly all his life been a collector of manuscripts, prints and books relating to American history, and it is stated that his valuable collection is to be added to the New York public library, but to be kept together and called the Emmet Library. This will be a most pleasing item of news to all interested in the subject and especially, perhaps, to the Sons and Daughters of the American Revolution, because it makes available for their inspection one of the most instructive and unique collections extant.

Obituary.

DR. JEROME COCHRAN, of Montgomery, Ala., died at his home in that city, August 18, 1896, of chronic nephritis, aged sixty-four years. Dr. Cochran had been physically enfeebled for some years and was a sufferer from partial hemiplegia, but of late this condition had somewhat improved and in May of this year he was in attendance upon the meeting of the American Medical Association at Atlanta, looking better than for some time previously. It was there remarked by his many friends that his appearance gave promise of a lengthened lease of life.

Dr. Cochran graduated in medicine at the University of Nashville in 1861, and soon afterward entered the confederate army, serving as surgeon until the close of the war. In June, 1865, he established himself at Mobile, where for ten years he occupied teaching chairs in the medical college of Alabama. For the past fifteen years he has resided at Montgomery, where his most conspicuous work was done in relation to public health and state medicine. He drafted the laws pertaining to public medicine in Alabama, was state commissioner of health and chairman of the Alabama state board of medical examiners.

Dr. Cochran was an acknowledged authority on the subject of yellow fever, having, in company with Surgeon-General Woodworth, of the Marine Hospital service, and Dr. S. M. Bemiss, of New Orleans, investigated the yellow fever epidemic of 1878, on which a valuable report was made, remarkable for its painstaking nature and of which Dr. Cochran is believed to be the author. He was a member of the American Public Health Association and expected to attend the meeting at Buffalo during this month. At Atlanta, last May, he was appointed to deliver the address on state medicine before the American Medical Association at Philadelphia next year, and his name was also mentioned prominently in connection with the presidency of the association.

Dr. Cochran was a man of versatile talents, a student of many subjects outside of his own profession, a charming conversationalist and a most delightful companion, whose friends and acquaintances, scattered all over the continent, will deplore his death.

DR. JAMES A. S. GRANT (Grant-Bey) died at the Bridge of Allan, Scotland, July 28, 1896. He had been in delicate health for some

time, and left his residence at Cairo, Egypt, for treatment at a German Spa, on account of a troublesome heart affection. Not finding the expected relief, he went to Scotland, where he was born, and where he tried the local springs, but with no better results. He reached his native country a short time before his death.

Dr. Grant was born at Meyhill, Scotland, about the year 1840. He was graduated at the University of Aberdeen, and went to Alexandria, Egypt, in 1865. Shortly afterward he went to Cairo, where he had since resided. His skill in his profession soon brought him distinction, and he became court physician with the title of Grant-Bey. He married Miss Ada M. Torrey, daughter of the late John Torrey, of Honesdale, Pa., February 7, 1870. She died in 1886, leaving two children, William Torrey Grant, now in Edinburgh University, and Jessie Campbell Grant. In the summer of 1890, Dr. Grant married Miss Florence Gibson, of Liverpool, England, who survives him with three children, one son and two daughters.

Dr. Grant-Bey was well known in this country, and a few years ago attended and read a paper at the annual meeting of the medical society of the State of New York.

DR. FRANKLIN R. BARROSS, of Attica, N. Y., died at his residence in that village, Monday, August 17, 1896, aged 64 years. He had been a prominent physician in active practice for about forty years, and commanded the respect of his acquaintances and neighbors. He will be missed by many personal friends as well as numerous families that he has served in the capacity of physician. His colleagues of the medical profession, with whom he has been so long associated, will also keenly feel his loss. He was a member of the Wyoming county medical society, and for many years had been a United States pension examiner.

Dr. Barross had been afflicted with Bright's disease of the kidneys for some time, but did not relinquish his practice until about three weeks before his death. He went to Clifton Springs, expecting that a rest would be beneficial. This, however, proved disappointing, and he returned to Attica a few days previous to his death.

Dr. Barross, in 1857, married Harriet, daughter of John Sargent, Esq., of Cowlesville, N. Y., who, with one son and two daughters, survives him. His funeral was largely attended.

DR. DANIEL H. BRENNAN, of Albion, died at the Buffalo general hospital, August 11, 1896. It is stated that he had suffered ill-health for some time, and that about two weeks previous to his death he was brought to Buffalo for treatment. It was finally determined that an operation for appendicitis was necessary, which was made a few days before his death.

About two years ago he married Miss Barnett, of Albion, who survives him.

Dr. Brennan was a promising young physician, and his death occasioned great grief to his numerous and attached friends.

Personal.

AMONG Buffalo physicians who are enjoying or have finished their vacations we have learned of the following: Dr. John H. Pryor is in the Canada woods for a few weeks; Dr. C. C. Frederick is at Block Island; Dr. and Mrs. A. Dagenais have returned from Europe; Dr. G. A. Himmelsbach has been at Muskoka and Parry Sound; Dr. and Mrs. H. H. Bradley have made the tour around the lakes; Dr. Charles Weil is at the seashore; Dr. John Parmenter and his family are at Hamburg-on-the-Lake for the summer; Dr. Jerome Hilton Waterman, who is serving in one of the New York hospitals, is spending his vacation at home in Buffalo; Dr. William C. Krauss is absent for a fortnight, during which he attended the meeting of the American Microscopical Society at Pittsburg.

DR. EDWARD N. BRUSH, superintendent of the Sheppard Asylum for the Insane, at Towson, Md., has been appointed professor of psychiatry in the Women's Medical College at Baltimore. The JOURNAL offers its congratulations to Dr. Brush, who formerly resided in Buffalo and was an associate editor of the JOURNAL.

DR. X. O. WERDER, of Pittsburg, has gone abroad for his summer vacation and will attend the International Congress of Gynecology and Obstetrics at Geneva, during the first week in September, as one of the accredited delegates from the American Association of Obstetricians and Gynecologists.

GENERAL FRANCIS A. WALKER, president of the Massachusetts Institute of Technology, received the degree of LL. D. from the University of Edinburgh at its recent convocation.

DR. J. B. S. HOLMES, of Atlanta, has been appointed a member of the Georgia State Medical Examining Board, to succeed Dr. J. C. Olmstead, resigned.

Society Meetings.

THE American Academy of Railway Surgeons will hold its third annual meeting at Chicago, in the Auditorium hotel, Wednesday, Thursday and Friday, September 23, 24 and 25, 1896, under the presidency of Dr. John E. Owens, of Chicago. A detailed program has been issued, that indicates preparations for an elaborate meeting. Dr. E. M. Dooley, of Buffalo, is announced to read a paper on Fracture of the femur, and Dr. C. M. Daniels, of Buffalo, is a member of the executive board.

PROVISIONAL PROGRAM.

First session will open on Wednesday, September 23d, at 10 A. M., standard time.

President's address, J. E. Owens, M. D., Chicago, Ill.

Executive Session.—1. Use and abuse of expert testimony, with some recommendations for its improvement, by an attorney. 2. Diseases of railway men caused by their occupation, J. F. Pritchard, M. D., district surgeon, C. & N. W. R'y, Manitowoc, Wis.; discussion opened by J. H. Ford, M. D., chief surgeon, "Big Four" R'y, Wabash, Ind. 3. The personal equation among train men; its importance equal or greater than the color sense; illustrated by an automatic machine which records both, Robert Tilley, M. D., Chicago; discussion opened by F. B. Eaton, M. D., oculist, O. R. & N. Co., Portland, Oregon.

Second Session.—WEDNESDAY, SEPTEMBER 23d, at 2.30 P. M., standard.

1. Penetrating wounds of the eye-ball, Archibald G. Thompson, M. D., assistant oculist, Penna. R'y, Philadelphia, Pa. 2. Penetrating wounds of the eye-ball, G. A. Wall, M. D., eye and ear surgeon, A. T. & S. Fe R'y, Topeka, Kan. 3. Penetrating wounds of the eye-ball, T. J. Redelings, M. D., surgeon, C. & N.

W. R'y, Marinette, Wis. 4. Penetrating wounds of the eye-ball, with special reference to differential diagnosis, D. C. Bryant, M. D., oculist, U. P. R'y, Omaha, Neb.; discussion opened by August Rhu, M. D., surgeon, "Big Four" R'y, Marion, Ohio. 5. Remote effects of bone trauma, D. S. Fairchild, M. D., surgeon, C. & W. R'y, Clinton, Iowa; discussion opened by K. A. J. McKinzie, chief surgeon, O. R. & N. Co., Portland, Oregon.

Third Session.—THURSDAY, SEPTEMBER 24th, at 9.30 A. M., standard.

Executive Session.—Report of secretary and treasurer. Report of standing committees. Registration of fellows and payment of dues. Consideration and disposal of applications for fellowship. Miscellaneous business.

1. Medico-legal aspects of floating kidney, R. Harvey Reed, M. D., consulting surgeon, B. & O. R'y, Columbus, Ohio; discussion opened by W. J. Galbraith, M. D., chief surgeon, U. P. R'y, Omaha, Neb. 2. Railway surgery, Jessie Hawes, M. D., division surgeon, U. P. D. & G. R'y, Greeley, Colo.; discussion opened by R. L. Harris, chief surgeon, G. & St. A. R'y, Oakland, Fla. 3. Emergency surgical practice, C. K. Cole, M. D., chief surgeon, Montana Central R'y, Helena, Mont.; discussion opened by Truman Miller, M. D., chief surgeon, C. & G. T. R'y, Chicago, Ill.

Fourth Session.—THURSDAY, SEPTEMBER 24th, at 2.30 P. M., standard.

1. First aid in railway emergencies, James E. Pileher, M. D., U. S. barracks, Columbus, Ohio; discussion opened by G. W. Hogeboom, M. D., chief surgeon, A. T. & S. Fe R'y, Topeka, Kan. 2. Experimental research into shock in abdominal operations and injuries, Geo. W. Crile, M. D., surgeon, C., C., C. & St. L. R'y, Cleveland, Ohio; discussion opened by J. W. Perkins, M. D., surgeon, U. P. R'y, Kansas City, Mo. 3. Shock and collapse, with special reference to amputations, Webb J. Kelly, M. D., surgeon, "Big Four" R'y, Galion, Ohio; discussion opened by W. L. Estes, M. D., chief surgeon, Lehigh Valley R'y, South Bethlehem, Pa. 4. The delirium of shock, R. S. Harnden, M. D., surgeon, Erie R'y, Waverly, N. Y.; discussion opened by Milton Jay, M. D., chief surgeon, C. & E. I. R'y, Chicago, Ill. 5. Injuries of the hands and fingers, John McLean, M. D., chief surgeon P. P. C. Co., Pullman, Ill.; discussion opened by W. L. Buechner, M. D., surgeon N. Y., L. E. & W. R'y, Youngstown, Ohio.

Fifth Session.—FRIDAY, SEPTEMBER 25th, at 9.30 A. M., standard.

1. An experimental study of Colles' and Potts' fractures on the cadaver, A. D. Bevan, M. D., chief surgeon, Iowa Central R'y, Chicago; discussion opened by R. Ortega, M. D., chief surgeon, Mexican Int. R'y, C. P., Diaz, Mex. 2. The cause and mechanical treatment of subluxation of the knee-joint, S. L. McCurdy, M. D., surgeon, Penna. Central, Pittsburg, Pa.; discussion opened by L. E. Lemen, M. D., division surgeon, U. P. R'y, Denver, Colo. 3. Compound comminuted fractures at the knee, with report of a case, W. A. Ward, M. D., surgeon, N. Y. C. & St. L. R'y, Conneaut, Ohio; discussion opened by A. C. Scott, M. D., chief surgeon, G. C. & S. F. R'y, Temple, Texas. 4. Relation of tuberculosis of the knee to injuries of said joint, H. Reineking, M. D., surgeon, C. & N. W. R'y, Sheboygan, Wis.; discussion opened by W. H. Buechner, M. D., surgeon, Erie R'y, Cleveland, Ohio.

Sixth Session.—FRIDAY, SEPTEMBER 25th, at 2.30 P. M., standard.

Executive Session.—Election of officers. Selection of next place of meeting. Miscellaneous business.

1. Fractures of the femur, E. M. Dooley, M. D., surgeon, N. Y., L. E. & W. R'y, Buffalo, N. Y.; discussion opened by J. I. Darby, M. D., chief surgeon, A. & M. R'y, Americus, Ga. 2. Past and present obstacles to the radical cure of hernia, E. Wyllys Andrews, M. D., surgeon, Wabash R'y, Chicago; discussion opened by R. D. Mussey, M. D., chief surgeon, C. H. & D. R'y, Cincinnati, Ohio. 3. Treatment of tramps and trespassers, H. J. Williams, M. D., surgeon, Central R'y, Macon, Ga.; discussion opened by Fred J. Hodges, M. D., chief surgeon, C. & S. E. R'y, Anderson, Ind. 4. Röntgen ray demonstration. Introduction of officers-elect. Adjournment.

Arrangements are being completed by the chairman, Dr. W. J. Galbraith, Omaha, Neb., for the transportation of fellows to the next annual meeting. Hotel accommodations will be arranged for by Dr. A. D. Bevan, Chicago, Ill., chairman committee of arrangements.

Other papers will be added to the program when the final announcement is made. Those interested in the advancement of railway surgery are respectfully invited to attend and participate in the discussions.

THE American Dermatological Association will hold its twentieth annual meeting at the Hot Sulphur Springs of Virginia, September 8, 9 and 10, 1896, under the presidency of Dr. A. R. Robinson, of New York. The following program has been prepared by the secretary, Dr. C. W. Allen, of New York :

FIRST DAY—TUESDAY, SEPTEMBER 8, 1896.

Business meeting (with closed doors) at 9.30 A. M. : Report of council ; nomination of officers for the ensuing year ; appointment of auditing committee ; proposals for active and honorary membership ; miscellaneous business.

Scientific session at 10.30 A. M. : 1. Address by the president, A. R. Robinson ; 2. Notes on dermatitis venenata, Dr. J. G. White ; 3. Paget's disease of the nipple, Dr. G. T. Jackson ; 4. Ulcerative scleroderma, Dr. P. A. Morrow ; 5. Two cases of arsenical pigmentation, Dr. W. A. Hardaway.

Scientific session at 3 P. M. : 6. A pathological and clinical classification of the diseases of the skin, Dr. L. A. Duhring ; 7. Erythema multiforme, with a report of two cases, Dr. W. T. Corlett ; 8. A peculiar affection of the mucous membrane of the lips and mouth, with colored drawings and photographs, Dr. J. A. Fordyce ; 9. A favus-like eruption of the oral mucous membrane, caused by the *aspegillus niger*, Dr. J. MacF. Winfield.

SECOND DAY—WEDNESDAY, SEPTEMBER 9, 1896.

Business meeting, with closed doors, at 9.30 A. M. : Report of treasurer and auditing committee ; election of officers ; election of active and honorary members ; selection of time and place of next meeting ; miscellaneous business.

Scientific session at 10.30 A. M. : General discussion—10. What effect do diet and alcohol have upon the causation and course of the eczematous affections and psoriasis ? Discussion opened by Dr. J. C. White ; 11. Cases of mycosis, fungoides and sarcomatosis, Dr. J. T. Brown ; 12. Xanthoma Diabeticorum, Dr. A. R. Robinson ; 13. Some glycosuric dermatoses, Dr. C. W. Allen ; 14. A case of hypertrophic rosacea (pachydermatosis) resembling tubercular leprosy, cured with thyroid extract.

Scientific session at 7.30 P. M. : 15. Exhibition of drawings, water colors, colored photographs, photographs and portraits of rare cases ; 16. Presentation of instruments, specimens and demonstrations of microscopic preparations and photomicrographs.

THIRD DAY—THURSDAY, SEPTEMBER 10, 1896.

Morning session at 9.30 A. M.: 17. The relation of dermatitis hepetiformis to certain other diseases, Dr. L. A. Duhring; 18. Bath pruritus, Dr. H. W. Stelwagon; 19. Eruption from the local use of iodoform (with colored drawings), Dr. J. A. Fordyce; 20. Impetigo contagiosa universalis, Dr. C. W. Allen. Adjournment.

THE ninth annual meeting of the American Association of Obstetricians and Gynecologists, as announced in the JOURNAL for August, will be held at the Hotel Jefferson, Richmond, Va., Tuesday, Wednesday and Thursday, September 22, 23 and 24, 1896.

The following additional papers have been presented, the numbers being consecutive to the first list: 35. Three cases of bowel resection, end to end suture, recovery, John B. Deaver, Philadelphia; 36. Tubercular peritonitis, W. A. Jayne, Denver; 37. Title to be announced, T. J. Crofford, Memphis; 38. Surgical management of acute diffuse peritonitis, with report of cases, John Young Brown, Jr., St. Louis; 39. Ventro-fixation and Alexander's operation, Geo. Ben Johnston, Richmond; 40. Rupture of the uterus during labor, with a specimen, B. W. Hypes, St. Louis; 41. Ten abdominal hysterectomies for fibroid disease of the uterus, Reuben Peterson, Grand Rapids; 42. Porro's operation, with report of a case, Edwin Ricketts, Cincinnati; 43. Methods of dealing with the stump in operations for appendicitis, C. N. Smith, Toledo; 44. Report of nine cases of uterine fibroids complicated by pregnancy, M. Rosenwasser, Cleveland; 45. Abdominal section for tubercular disease, Thos. E. McArdle, Washington; 46. Atresia with retention of the menses, treatment, W. H. Myers, Fort Wayne; 47. Suture of large vessels injured in operation, with demonstration of method, J. B. Murphy, Chicago; 48. Plastic surgery of the male genital tract, Joseph Price, Philadelphia; 49. The Limitations of nephrorrhaphy, Hugh M. Taylor, Richmond; 50. Intestino-vaginal fistulæ, with report of a case, C. C. Frederick, Buffalo; 51. Shall we leave the uterus *in situ* after the excision of the adnexa? E. F. Fish, Milwaukee; 52. Memorial of Dr. Hiram Corson, Traill Green, Easton.

THE Mississippi Valley Medical Association will hold its next annual meeting at St. Paul, September 15, 16, 17 and 18, 1896, under

the presidency of Dr. H. O. Walker, of Detroit. The date of this meeting has been changed from October, in order to permit members and their families to avail themselves of the opportunity to make a tour through the Yellow Stone Park. An excursion is expected to leave St. Paul, Friday evening, September 18th, arriving at Mammoth Hot Springs the following Sunday. The excursionists will be enabled to devote five days to inspecting the wonders of the Yellow Stone, reaching St. Paul, on the return trip, September 27th. Details will be duly announced.

In this connection we are permitted to state that the Chicago, Milwaukee & St. Paul railway will be the official route of the association from Chicago. A reduction of rates is expected that will include points as far east as Buffalo. Mr. William Kelly, in the Ellicott Square building, represents the aforementioned railway in this city, and will gladly furnish any information concerning the proposed meeting and the subsequent excursion.

THE American Public Health Association will hold its twenty-fourth annual meeting at Buffalo, in the Ellicott Square building, Tuesday, Wednesday, Thursday and Friday, September 15, 16, 17 and 18, 1896, under the presidency of Dr. Eduardo Licéaga, of the City of Mexico.

All persons interested in the preservation of public health, whether doctors, lawyers, ministers, civil and sanitary engineers, or business men, are cordially invited to attend the sessions. Dr. Ernest Wende is chairman of the local committee of arrangements, and will open an office in the Ellicott Square some days before the meeting, for the purpose of giving information on the subject.

THE Tri-State Medical Society, of Alabama, Georgia and Tennessee, will hold its eighth annual meeting at Chattanooga, October 13, 14 and 15, 1896, under the presidency of Dr. J. B. Murfree, of Murfreesboro'. The secretary, Dr. Frank Trester Smith, of Chattanooga, is preparing an elaborate program.

THE American Electro-Therapeutic Association will hold its sixth annual meeting, Tuesday and Wednesday, September 29 and 30, and Thursday, October 1, 1896, in the Austin hall, Studio building, Clarendon street, near St. James avenue, Boston, Mass.

THE American Association for the Advancement of Science is holding an interesting and well-attended meeting while these pages are printing. An elaborate program has been prepared and the several sections are in full working order. An address of welcome on behalf of the Buffalo Society of Natural Sciences was delivered by Dr. Roswell Park, and many scientific papers of great value are being read and discussed. The distinguished paleontologist, Prof. Edward D. Cope, of Philadelphia, is the president.

Among other things Dr. Park, in his address of welcome, said :

I appreciate the honor of extending to you a welcome to our fair city, pleasant in climate, bustling with commercial activity and the pride of more than one-third of a million of inhabitants. Not the least of our pleasant recollections in seeing you now is the remembrance that after the period of your inactivity during the civil war, your first meeting for reorganisation was held at Buffalo. Twice since then your association has honored us by selecting Buffalo as a meeting place, and now we again extend to you a welcome bounded only by the city's limits and the hospitality of its citizens. We are proud of our city, of its commercial prosperity, of its educational institutions and natural beauties. We would ask those who have been here before to compare our present with our past, and see with what rapid strides we are becoming one of the largest and most prosperous cities of the continent.

In responding, President Cope said that each member of the association felt the warm sympathy and the hearty hospitality that had been extended by the people of Buffalo. He spoke of original research as promoting mainly the advancement of science. Love of research, he said, makes a man devote himself to the study of science, and it means endless advantages both to the investigator and to those who profit by his research. The scientific career is one which offers great advantages in this country, rich in the elements that make the calling a source of delight. It is a life of happiness, for in congenial labor is found happiness. In the line of intellectual progress the scientific career offers the very best.

College and Hospital Notes.

DR. I. N. LOVE, for many years a highly honored and popular teacher in Marion-Sims college of medicine, of St. Louis, having seen fit, under pressure of professional and editorial duties, to resign his chair, the faculty has published the following minutes :

WHEREAS, Dr. I. N. Love has found it incumbent upon him to sever his connection with the Marion-Sims college of medicine, the members of the faculty of that institution embrace this occasion to express their appreciation of his past services, and to extend to him their hope that in all his future connections he will find both pleasure and profit.

B. M. HYPES,
R. C. ATKINSON,
C. BARCK, *Committee.*

THE Kentucky School of Medicine, at a recent meeting of its faculty, announced the following appointments: Dr. Louis Frank, lecturer on clinical and operative gynecology; Dr. Henry E. Tuley, lecturer on obstetrics; Dr. T. C. Evans, lecturer on ophthalmology, otology and laryngology; Dr. Carl Weidner, lecturer on physiology; Dr. W. Ed. Grant, lecturer on anatomy; Dr. Ewing Marshall, lecturer on physical diagnosis.

Public Health and Hygiene.

THE State Board of Health held its monthly meeting for July, at Jamestown, on Friday, July 24, 1896. There were present at the meeting: Dr. Daniel Lewis, of New York, president; Dr. B. T. Smelzer, of Albany, secretary; Hon. Theodore Hancock, attorney-general; State Engineer C. W. Adams, of Utica; Owen Cassidy, of Montour Falls, who is the legal adviser of the board; Dr. Frederick W. Smith, of Syracuse, and Frank E. Shaw, of Chautauqua county. The principal business of the session was a discussion of tuberculosis and the appointment of a tuberculosis commission, Dr. Smith and Mr. Cassidy being selected as such. This commission is charged with the inspection of cattle in this state as regards tuberculosis, the Department of Agriculture taking charge in all other contagious diseases in cattle, excepting in cases of glanders. Owing to the fact that the commission must work without adequate means, by reason of the failure of the legislature to make appropriations therefor, it will consider no cases except upon request, and then will send a veterinarian, who will decide upon the question of the presence of the disease, and if he orders the cattle killed, an appraiser appointed by the comptroller will determine the value of the property thus ordered destroyed.

Among other things, complaint was made that the hotels along the shores of Lake George emptied their sewage into the lake. This matter was considered at some length, but no definite action was taken, although it is probable that the hotels along the shores of this beautiful lake will be obliged to take care of their sewage in some other way than by carrying it to the lake.

The propriety of holding monthly meetings in various parts of the state is not to be questioned. Considerable good must certainly accrue from the familiarity with local sanitary conditions which the board will thus obtain.

EXACT DOSAGE IN EXERCISE.—Housework, gardening, chores, walking, climbing, cycling, running, swimming and many other sports, says the *Popular Science Monthly*, give just the kind of exercise that is indicated in certain conditions, due regard being had to the physiological effects of varying dosage. Oertel has shown how the simple exercise of walking may be adapted to sufferers from cardiac debility by prescribing the distance and speed and the number and lengths of the rests on definite paths, graded according to their slope. His interesting and original work has not only given a new direction to the treatment of certain cardiac affections, but is destined to have an important influence in establishing accuracy in the prescription of exercise. Whoever has studied the map of the environs of Reichenhall, Bavaria, prepared by Oertel for the application of his method, will acquire a vivid idea of what precision of dosing in exercise means. In this map the different paths suitable for the work are marked in four different colors, to indicate those that are nearly level, those slightly sloping, moderately sloping and steep, and figures are placed along each route to show the space that should be traversed in each quarter-hour. The locality itself is prepared for its remedial use by placing benches for resting at suitable distances, and by marking, on certain trees near the path, circles colored to correspond with the map, to indicate the difficulty of that particular section. By systematic practice on the easier paths heart and system are progressively trained and strengthened. Intelligent analysis may do the same work for cycling, horseback riding and many other familiar exercises. In this way the dosage is practically reduced to a definite number of kilogrammeters in a given time, and a step has been taken in placing the prescription of exercise upon a scientific basis.—*Medical Review*.

THE Indiana State Board of Health has issued a circular letter to all railroad officials asking them to have ejected from their trains every man who persists in spitting on the floor of the cars or stations after he has been warned not to do so. In the circular the board explains that the sputum contains the germs of la grippe, nasal catarrh and various other diseases. It also declares that "spitting is a nasty and unnecessary habit," and explains that the board of health will pass a rule against spitting which will have all the force of law if the railroads will post it up and endeavor to enforce it. The circular adds: "When the rule is first published and posted up in public places, this board will, of course, be loudly abused as foolish, impracticable and idiotic. Attention thus being gained, we will publish in every county reason for the action." Such a reform as the Indiana health officers have undertaken is needed in every part of the United States.—*Chicago Medical Recorder*.

Book Reviews.

A SYSTEM OF SURGERY. By American authors. Edited by FREDERIC S. DENNIS, M. D., Professor of the Principles and Practice of Surgery, Bellevue Hospital Medical College, New York; President of the American Surgical Association, etc., assisted by John S. Billings, M. D., LL. D., D. C. L., Deputy Surgeon-General, U. S. A. Complete in four imperial octavo volumes, containing 3,652 pages, with index. 1,585 engravings and forty-five full-page plates in black and colors. Volume IV., 970 pages, 441 engravings and twenty-three plates. Price, per volume, \$6.00 in cloth; \$7.00 in leather; \$8.50 in half Morocco, gilt back and top. For sale by subscription. Philadelphia: Lea Brothers & Co. 1896.

This volume completes Dennis's system of surgery and is in every way quite up to the standard of excellence which characterizes the preceding volumes. The subjects include tumors, hernia, the surgery of the alimentary canal and of some of the abdominal viscera, the breast, and as evidence of the progressive character of the work a final chapter is devoted to the use of the Röntgen rays in surgery.

The chapter on tumors by the editor is an excellent one. According to the author the development of tumors seems to be due to changes of an inflammatory nature in a large majority of cases, and that mechanical injury and peripheral irritation are the common causes of the preliminary inflammation. As the author puts it, "mechanical injury is associated with sarcoma, notably of bone; peripheral irritation is associated with carcinoma, and sinus

or other irritation is associated with epithelioma." Heredity also plays an important part etiologically, from 12 to 15 per cent. of cases being traceable to this influence.

The pages devoted to the treatment of tumors, particularly those of malignant type, are full of interest, clinical experience and hope. The author's views are stated as follows :

The clinical evidence is such that the surgeon cannot disregard the strong arguments in favor of the reversion to primary cells, induced perhaps by inflammatory causes ; and if this theory is accepted, the local origin of tumors seems evident. The general infection spreads from a local one, and the early and radical removal of the primary focus will prevent the widespread dissemination of malignant disease."

In accordance with this belief early and radical operation is earnestly advised in the treatment of malignant neoplasms. Should the tumor recur, it must be removed again and operation persisted in until final recovery is effected, or the case becomes clearly inoperable. Of the toxin treatment, as practised by Coley, the author has much to say in the way of commendation. While not committing himself to an exact opinion he regards the procedure justifiable and one which offers encouragement for the future.

The chapter upon hernia by Bull and Coley is quite complete. The anatomy and pathology, the various forms and the recognised methods of treatment are all compactly but clearly described. The mortality in 5,000 cases of reducible hernia, treated by some form of radical operation, is given $1\frac{1}{2}$ per cent. From 60 to 90 per cent. remain sound for a number of years. Bassini's operation is preferred by the authors, who have personally operated upon upward of 300 cases with three deaths and seven relapses, all slight. The remaining chapters of the volume are of the same high character and deserve careful reading. Indeed, it is difficult to select when all have such uniform and general excellence.

The publishers have done just what might have been expected and given out a most attractive volume. The type is admirable, the illustrations are clear and most of them new. A few typographical errors such as *firbo-lipoma* for *fibro-lipoma*, page 857 ; *Mondé* for *Mundé*, page 687, mar, but in no wise affect the great scientific value of the work.

J. P.

FIFTEENTH ANNUAL REPORT of the State Board of Health of New York. Including eighteen maps. Transmitted to the Legislature March 6, 1895. Albany : James B. Lyon, State Printer. 1895.

One of the most interesting portions of this report is that prepared by the commission on tuberculosis in cattle. It shows that great progress is making in this department of preventive medicine ; for, whereas, prior to 1892 there was no law in existence in this state providing adequate authority to deal with the examination of cattle, there is now ample provision on the subject. It is asserted that tuberculosis causes one in every eight deaths in this

state, which makes it of the first importance to throw safeguards around the milk supply. Milk is one of the principal aliments of childhood, and as the channel of infection is principally through the intestinal tract, the danger from the use of infected milk is very great.

During the first year and a half of the operation of the law the state board of health examined 22,000 cattle, of which number 800 were condemned and slaughtered. The methods of determining the presence of tuberculosis are now almost certain, and it is becoming that a great state like New York should exercise the most prudent care in its detection among herds and should institute the most summary measures to eradicate it when found. We commend the good work of the board in this direction and trust it will receive the support of all interested in the preservation of the public health. These volumes should be in possession of all sanitarians and public health officers.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology and Dermatology, and specially prepared articles on treatment. By professors and lecturers in the leading medical colleges of the United States, Germany, Austria, France, Great Britain and Canada. Edited by Judson Daland, M. D., (Univ. of Penna.) Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania; Assistant Physician to the Hospital of the University of Pennsylvania; Director of the Stetson Laboratory of Hygiene; Fellow of the College of Physicians of Philadelphia. J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician to, and Lecturer on, the Principles and Practice of Medicine at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume IV. Fifth series. 1896. Octavo, pp. xii.—363. Philadelphia: J. B. Lippincott Co. 1896.

This volume, in continuation of an excellent series of clinical lectures, is to be characterised as one of the best that has been issued. John Ashurst contributes a lecture on tuberculosis of the hip-joint that contains much which is interesting if not new, and withal it is handsomely illustrated.

Mr. Christopher Heath presents a case of sarcomatous tumor of the upper jaws. With this he shows an excellent photograph of a case of epithelioma of both superior maxillæ. The picture is of great diagnostic significance.

Arpad G. Gerster lectures on the modern treatment of urethral stricture and the author's self-indicating bulbous aseptic urethrotome. He illustrates his instrument and also gives a plate showing paraffine casts of the normal urethra, taken from the cadaver, which

exhibit the varying caliber of this canal in health. The importance of a better knowledge of these diseases is attracting the attention of genito-urinary surgeons in all parts of the world. Charles Cary lectures briefly on hemiplegia, and he is the only Buffalo representative in this volume. Perry H. Millard tells of spreading or progressive gangrene and makes an interesting and instructive lecture out of a very loathsome condition, which, however, is one of the most important in the whole range of surgical pathology. Joseph M. Mathews discourses upon syphilitic ulceration with stricture of the bowel; also of combined internal and external hemorrhoids. Whenever Dr. Mathews speaks to his pupils he instructs them in a manner that they are not likely to forget. We should like to speak of several other lectures in this volume, did space permit.

DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM, ANUS AND CONTIGUOUS TEXTURES. Designed for Practitioners and Students. By S. G. GANT, M. D., Professor of Diseases of the Rectum and Anus, University and Woman's Medical Colleges; Lecturer on Intestinal Diseases in the Scarritt Training School for Nurses; Rectal and Anal Surgeon to All-Saints, German, Scarritt's Hospital for Women, and Kansas City, Fort Scott and Memphis Railroad Hospitals, etc., etc. With two chapters on Cancer and Colotomy, by Herbert William Allingham, F. R. C. S., Eng., Surgeon to the Great Northern Hospital; Assistant Surgeon to St. Mark's Hospital for Diseases of the Rectum; Surgical Tutor to St. George's Hospital, etc., etc., London. One volume, royal octavo, 400 pages. Illustrated with sixteen full-page chromo-lithographic plates and 115 wood-engravings in the text. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street; New York: 117 W. Forty-second street; Chicago: 9 Lakeside Building.

In presenting a notice of this book we wish we could feel that it was a necessity, or that it filled a complementary place in the literature of the subject of which it treats. Since Mathews's excellent work was published a few years ago, now carefully undergoing revision, there seems to have been very little room for another treatise on diseases of the rectum and we doubt if this book gains favor with the specialists in that important department of surgery.

In the first place the author's style is unfortunate; perhaps some critic might characterise it with a harsher term. In treating of pruritus ani (page 237) the author says: "We have derived immediate relief from brushing the diseased parts with a solution of nitrate of silver, etc." This auto-clinical picture borders on the amusing.

In a general way it is proper to state that the methods of the author are such as meet the approval of specialists, but we are unable to determine the development of any new facts, or a recasting of any old ones, that are of sufficient importance to

warrant the publication of a new treatise at the present time on diseases of the rectum and anus. Mathews's quarterly journal covers the field in this department most admirably and keeps specialists well advised of the progress making as rapidly as it occurs.

In omitting the diphthong the author's good judgment is to be commended. It is unpleasant in this day and age to see otherwise beautiful pages marred by a retention of this ancient and useless method of spelling. Some of the plates are excellent, but the novitiate would gain a very crude idea of the semi-prone posture from the illustration on page 21.

TRANSACTIONS OF THE SEVENTEENTH ANNUAL MEETING OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION, held in the City of Rochester, N. Y., June 17, 18 and 19, 1895. Edited by CHARLES H. KNIGHT, M. D., Secretary. New York: D. Appleton & Co. 1896.

The president of this association for 1895, Dr. John O. Roe, of Rochester, very fittingly chose for the subject of his annual address, The relation of damp air to diseases of the air-passages, and considered the subject with special reference to the prevalence of these diseases in the lake region. It is well known that the climate of the region of the Great Lakes is especially productive of diseases of the nose, throat and lungs. We need not go far in a search for causes before we ascertain that the humidity and dampness of the atmosphere, associated with frequent, sudden and extreme variations in temperature, are adequate to solve the problem. Dr. Roe has dwelt upon this point with great clearness. He has also emphasised the importance of thorough drainage as a factor in mitigating the ill-effects of these atmospheric conditions. There are very many other papers in the book of absorbing interest to laryngologists, most of which possess the excellent merit of brevity. A paper by Mr. Charles H. Ward, the distinguished naturalist, on Nasal characteristics, human and comparative, possesses great interest and is well illustrated. This association is noted for the excellent character of its scientific work, and its annual volumes are eagerly sought by laryngologists in every part of the world.

TRANSACTIONS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS. Volume VIII. Eighth annual meeting, held at Chicago, September 24, 25 and 26, 1895. William Warren Potter, M. D., Secretary, Buffalo, N. Y. Philadelphia: Wm. J. Dornan, Printer, 100 N. Seventh street. 1896.

This association has again issued an interesting and valuable volume that will take an important place in the literature of obstetrics, gynecology, pelvic and abdominal surgery. The papers, as usual, are pointed and the discussions spirited. One of the excellent features of this association is that the Fellows do not

waste words in fulsome praise of each other, but at once address themselves to the meat and kernel of the subject under debate, attacking its weak points, accentuating its strong ones and leaving its essential features so well analysed that the reader is not in doubt as to the bearing and weight that should be given to the author's views.

During the year four Fellows of the association have gone to their immortality—namely, Dr. Franklin Townsend, of Albany; Dr. J. Edwin Michael, of Baltimore; Dr. Thomas Keith, of London; and Dr. L. Ch. Boisliniere, of St. Louis. Appropriate memorials, accompanied by excellent portraits, are published of the deceased, written respectively by Drs. Albert Vander Veer, George H. Rohé, Leith Napier and Frank A. Glasgow. The book is well indexed and printed and handsomely bound.

AN INQUIRY INTO THE DIFFICULTIES ENCOUNTERED IN THE REDUCTION OF DISLOCATIONS OF THE HIP. By OSCAR H. ALLIS, M. D., Fellow of the College of Physicians and of the Academy of Surgery, Philadelphia, etc. The Samuel D. Gross Prize Essay. Philadelphia. 1896.

It is one of the conditions of this prize that the successful competitor shall publish his essay in book form, hence a few copies have been sent out to the medical journals. The author devotes about two-thirds of his treatise to what he is pleased to term an introductory study. In this the lesion is considered anatomically, geometrically and surgically. A careful analysis is given of all these divisions, and they are illustrated with schematic drawings that serve to make clear the most intricate parts of by far the most important dislocation that is likely to take place in the human body. The author then, in part second, considers the reduction of dislocations by manipulation, and gives a critical examination of the various methods proposed and the obstacles that beset each of them. Here again is displayed the author's talent for analysis with mathematical accuracy, and profuse schematic drawing are again made to illustrate his views.

This essay is the most classic contribution to the subject that has yet appeared.

OBSTETRIC ACCIDENTS, EMERGENCIES AND OPERATIONS. By L. CH. BOISLINIERE, A. M., M. D., LL.D., late Emeritus Professor of Obstetrics in the St. Louis Medical College; Honorary Fellow of the American Association of Obstetricians and Gynecologists, etc., etc. Duodecimo, pp. 381. Liberally illustrated. Price, \$2.00 net. Philadelphia: W. B. Saunders. 925 Walnut street. 1896.

This book has been prepared by an experienced obstetrician and presents many important questions relating to obstetric accidents and emergencies with clearness and perspicacity. We are,

however, unable to discover any new points of importance connected with those urgent obstetrical questions that tax the judgment and mental equipment of the physician. It cannot be regarded in any sense as an authoritative treatise, but will serve to arm the young practitioner with information that he must hurriedly seek when he has neither time nor opportunity to consult the standard works on obstetrics.

It is illustrated with very many excellent drawings and plates, the best of which have been taken from Dickinson. We are not quite able to see a great necessity for the presentation of this book to the profession at this time, but being here we are quite willing to state that it contains very many useful hints that are for the most part succinctly set forth in agreeable English.

A COMPEND OF GYNECOLOGY. By WILLIAM H. WELLS, M. D., Adjunct Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic, etc. Quiz Compend, No. 7. Duodecimo, with 150 illustrations. Price, 80c. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1896.

A COMPEND OF DISEASES OF CHILDREN. Especially adapted for the use of medical students. By MARCUS P. HATFIELD, A. M., M. D., Professor of Diseases of Children, N. W. U. Medical School, etc. Quiz Compend, No. 14. Duodecimo, second edition, thoroughly revised. Price, 80c. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1896.

Since we must needs be inflicted with quiz compends it is best to have good ones such as these. Wells has grouped a great mass of facts into a very compact space, and speaking generally they are such as a student must acquire for his pass examinations. On page 21 he illustrates several postures by drawings made from photographs taken by the writer of this notice, though credit is not given to the original source.

Hatfield has also presented many important questions relating to pediatrics, that will prove useful to the undergraduate in refreshing his memory.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK for the Year 1896. FREDERICK C. CURTIS, M. D., Secretary. Albany, N. Y. Philadelphia: Wm. J. Dornan, Printer, 100 N. Seventh street. 1896.

The annual volume of transactions put forth by this society is rarely disappointing. It usually issues the best book of transactions of any state medical society with which we are familiar. The present one is fully up to the high standard set by this society many years ago and has received favorable comment from several medical journals outside the boundary lines of its own jurisdiction. New York has, since 1806, exercised some form of control over the practice of medicine. It is now conceded on all hands that it

has one of the best medical practice acts extant. This law was presented to the legislature by this society and was pushed to a conclusion mainly through its efforts over a formidable opposition. It has been now in operation long enough to make its workings effective in regard to the personnel of the state medical society and the quality of work that it turns out ; hence, year by year, an improvement in its annual volume may be expected from a society that is full of progress—of tomorrows rather than of yesterdays.

WEEKLY ABSTRACT OF SANITARY REPORTS, issued by the Supervising Surgeon-General Marine Hospital Service. Volume X. 1895. Washington : Government Printing Office. 1896.

Though these reports come to hand weekly they are greatly enhanced in value by having them bound at the end of the year and sent out in this fashion. They contain a valuable amount of information on the subject of public health and hygiene, and are the only record that identifies the general government in any way with the question of public sanitation. None of the great powers is as indifferent to these matters as the United States—more's the pity. We hope to see the time when a department of health will be created, presided over by a cabinet officer, to be nominated by the American Public Health Association. This method of appointment would practically take the question out of politics, which we conceive to be quite important. Meanwhile, let the marine hospital service continue its good work, of which these annual volumes give abundant evidence.

TRANSACTIONS OF THE RHODE ISLAND MEDICAL SOCIETY. Volume V. Part II. George D. Hersey, M. D., Secretary. Providence : Snow & Farnham. 1896.

This modest volume in paper cover records the proceedings of an old medical society. It consists of the transactions at four quarterly meetings, the annual address of the president, Dr. Geo. F. Keene, eight scientific papers, annual committee reports, obituary notices, and list of Fellows. The pages are numbered consecutive to Part I., and all parts may be bound together, when issued, forming one standard octavo volume. The total membership of the society is 243, which is an excellent showing for a state of its size.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION, at its Nineteenth Annual Meeting, held at Montreal, Can., September 17, 18, 19, 1895. New York : Geo. L. Goodman. 1896.

Dermatology is of necessity one of the most distinct of the specialties. It is hardly possible for a general practiser of medicine to gain any success in the treatment of diseases of the skin.

The transactions of this association, therefore, chiefly possess interest for dermatologists. The association has been in existence about twenty years and has but thirty-eight members. It is probable that there are fewer physicians devoting themselves exclusively to the practice of dermatology than to any other specialty. This volume is well edited by the secretary, Dr. Charles Warrenne Allen, of New York, and it deserves a more permanent cover. Paper is not stable enough to endure the necessary wear and tear of a library book.

TENTH ANNUAL REPORT of the State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania. Benjamin Lee, M. D., Secretary. Philadelphia: Clarence M. Busch, State Printer. 1895.

This is one of the most valuable health reports issued by any of the states. Its secretary is an experienced sanitarian, and the influence exerted by him is apparent throughout the volume. We can readily understand and appreciate the importance of retaining such a man as Dr. Lee in office year by year. It seems a pity that all the states could not do the same. The statutes pertaining to state boards of health should be so drawn as to prevent politicians from interfering with the administrative officers. When an experienced and capable sanitarian can be induced to take the office he should be kept indefinitely; when an intriguing politician obtains it he should be unceremoniously dismissed with the greatest promptitude.

KEIL'S MEDICAL, PHARMACEUTICAL AND DENTAL REGISTER-DIRECTORY AND INTELLIGENCER. With special Medical, Pharmaceutical and Dental Departments, containing detailed information of colleges, hospitals, asylums, societies; with street lists, etc., etc., for Pennsylvania, New York, New Jersey, Maryland, Delaware and District of Columbia. Fourth edition. GEORGE KEIL, editor. Philadelphia: Burk & McFetridge Co., Publishers, 306 Chestnut street. 1896.

The editor has succeeded in grouping a vast amount of information, in easily accessible form, between the covers of this convenient volume. He has taken pains to perfect the list of medical societies, dispensaries and other organisations, and it may be considered altogether as the most complete and convenient medical directory that is published within the limits of its own boundary lines.

PROCEEDINGS OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY. ALFRED STENGEL, M. D., Editor. Volume XVI. Session of 1895. Philadelphia: William J. Dornan, Printer. 1895.

We know of no county society that can compete with this one, either in the quality of the scientific work it does or in the method

of sending it out to the profession. Its papers are carefully prepared and its discussions well reported. At the end of a year they are substantially bound into book form, with durable cover and gilt tops. The president during 1895 was Dr. James C. Wilson, under whose administration this book of 400 pages was created. The editor has performed his part admirably, and the printer has dressed the book in proper garb. Many of the papers possess scientific qualities of the first order.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF CENTRAL NEW YORK. Twenty-eighth annual meeting, held at Syracuse, N. Y., October 15, 1895. WILLIAM C. KRAUSS, M. D., Editor. Volume II. Buffalo: Buffalo Medical Journal Print. 1896.

That this association has adopted a good method for the preservation of its work, this second volume bears additional testimony to, and indicates an increased prosperity. The papers herein published, together with the discussions, have already been printed in the JOURNAL, hence our readers have had an opportunity to become informed as to their literary and scientific worth. The volume is illustrated with a number of half-tone pictures, and is handsomely printed with clear type on good paper. It is a record of creditable work by an experienced association.

TWENTY-FIRST ANNUAL REPORT of the State Board of Health of Michigan, for the year ending June 30, 1893. HENRY B. BAKER, M. D., Secretary. Lansing: Robert Smith & Co., State Printers. 1896.

Michigan is one of the foremost states in its sanitary administration. The secretary of the Michigan state board of health is an expert in sanitary science and is retained in office year after year, no matter what other changes take place in reference to its state board of health. This is a correctly set pace and one that New York could well afford to follow. Until it does it will never take its appropriate place among the most advanced commonwealths in regard to the prevention of disease. The annual volumes of the Michigan board are full of interesting material, this one being no exception to the rule.

BOOKS RECEIVED.

Twentieth Century Practice. An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In twenty volumes. Volume VIII. "Diseases of the Digestive Organs." New York: William Wood & Company. 1896.

Eighteenth Annual Report of the State Board of Health of the State of Illinois. (Being for the year ended December 31, 1895.) With an Appendix containing the Official Register of Physicians and Midwives, 1896. Springfield, Ill.: Ed. F. Hartman, State Printer. 1896.

The Eye and Its Care. By Frank Allport, M. D., Minneapolis. Minn., Professor of Clinical Ophthalmology and Otology in the Minnesota State University; President of the Minnesota State Medical Society; Secretary of the ophthalmological section of the American Medical Association, etc., etc. Philadelphia: J. B. Lippincott Company. 1896.

The American Academy of Railway Surgeons. Report of the second annual meeting, held at Chicago, Ill., September 25, 26 and 27, 1895. Edited by R. Harvey Reed, M. D., Columbus, O. Chicago: American Medical Association Press. 1896.

A Treatise of Appendicitis. By John B. Deaver, M. D., Surgeon to the German Hospital, Philadelphia. Containing thirty-two full-page plates and other illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1896.

A Treatise on Surgery. By American authors. Edited by Roswell Park, M. D., Professor of Surgery and Clinical Surgery, Medical Department, University of Buffalo, Buffalo, N. Y. In two very handsome octavo volumes, comprising about 1,600 pages, with about 800 engravings, largely original, and about forty full-page plates in colors and monochrome. Volume I., General Surgery and Surgical Pathology. Volume II., Special Surgery. Price, per volume, cloth, \$4.50; leather, \$5.50; net. Lea Brothers & Co. 1896.

Literary Notes.

LEA BROTHERS & Co., medical publishers, Philadelphia, announce that they will issue, early in September, a revised edition of Gray's Anatomy. Every page of this new edition has received the careful scrutiny of a corps of eminent American anatomists, who have made such changes as seemed to appear necessary to represent advances in anatomical knowledge and improved methods of teaching since the thirteenth edition of Gray was published. Students and teachers will be eager to obtain the forthcoming book. The price will be retained at the previous figure.

MEDICAL PRESS BUREAU.—At the solicitation of a number of prominent medical publishers, Mr. Charles Wood Fassett has decided to conduct a medical press bureau at the prominent medical association meetings held in this and foreign countries. The plan will be inaugurated at the meeting of the Mississippi Valley Medical Society, in St. Paul, September 15, 1896, and in brief is as follows: Ample space is to be reserved in the medical exhibit hall for a library and reading room, for the use of the visiting doctors, in which will be placed the principal medical journals of

the country, and where subscriptions and advertising will be received, sample copies and advertising matter distributed. A neat catalogue will be issued, giving full description of each periodical, together with its subscription price and special features. These will be distributed at headquarters, in the principal hotels, and in all rooms where exhibits are placed, thus reaching not only all the physicians in attendance, but the advertisers as well. Besides this, a table will be reserved in the hotel writing rooms, where a number of copies of each journal will be placed at the disposal of the delegates, for evening reading and consulting.

Mr. Fassett has been a regular attendant at the national and state societies for a number of years, in the interest of journalism, and is enthusiastic as to the benefits accruing to a proper representation at these annual meetings. Doctors and advertising patrons admire enterprise and patriotism when evinced in a proper manner. It goes without saying that the highest compliment you can pay a medical society or an advertiser, is to place your journal where the society members can examine it while they are "off duty" and outside the confines of their office.

And yet we see but very few journals represented at even the largest meetings. And why? Simply because of the expense of sending and maintaining a representative. Especially is this true of those publishers who are located in remote portions of the country. Consequently they are seldom heard of except at local meetings. The plan for a coöperative representation, as outlined above, is both feasible and desirable, and in the hands of so experienced a manager as Mr. Fassett cannot fail to be a success. It will advance the interests of the entire medical press of America, and will impress every patron in a most favorable manner. A small fee will be charged, to cover expenses, and the membership will be limited. We advise every publisher to communicate at once with Mr. Fassett and obtain details of the plan.—*Bulletin of the American Publishers Association.*

Miscellany.

TO DRIVE AWAY FLIES.—Dr. H. S. Baketel, of Derry, N. H., writes: Many practitioners of medicine among the poorer classes are greatly annoyed by flies in the sick room. The annoyance to the patient is doubly great. Such, at least, was my experience not

long since on New York's great east side. An excellent safeguard against these pests is the sweet-pea flower. The *Lathrus maritimus*, the purple variety, grows near the seacoast from New Jersey around to Oregon, and beside the coasts of the Great Lakes. The *Lathyrus ochroleucus* is found on the hillsides from New England to Minnesota, and even further west. It is distinguished by its small, yellowish-white flower. Either of these varieties can be grown in the sick room, and the sweet odor emanated seems very offensive to the ordinary house fly.—*Chicago Medical Record*.

AN ADVERTISING specialist of Cincinnati, Dr. W. I. Kelley, has been arrested and fined \$50 by the Kentucky courts, upon a warrant sworn out by Dr. J. M. Mathews, of Louisville, the president of the State Board of Health, charging him with practising medicine without a state license. It is alleged that Dr. Kelley applied for a license, which was refused him. The Hon. W. C. P. Breckenridge defended him, and has given notice of an appeal.—*Atlantic Medical Weekly*.

THE FIRST RAILWAY ACCIDENT.—From an historical standpoint the Baltimore & Ohio railway is preëminently interesting. It was on this railroad that the first American locomotive ever constructed was put into operation. History tells us that Peter Cooper was the master mechanic who conducted its construction, and that on August 28th, nearly sixty-six years ago, he drew with it the first passenger car ever propelled by steam on any railroad in the world. On this historic occasion Mr. Cooper was not only the master mechanic but engineer, and in addition to having gained for him the distinction of having built the first railway engine in America and drawn the first passenger car in the world, he on the same occasion was the subject of an accident, in which, the record tells us, he severely jammed his thumb, and which is believed to be the first railway casualty in the history of the world.—*Columbus Medical Journal*.

PHYSICIANS SHOULD WORK LESS.—Dr. Kortright, in the *Brooklyn Medical Journal*, says that arterial sclerosis is a common cause of death in physicians. The lesson that we should learn from our deceased colleagues, he states, is not to work too long. When you find your arterial tension increasing, your temporal artery becoming tortuous, your radial growing hard, especially if you

have a little palpitation and pass an increased amount of limpid urine, whatever your years, know that old age is upon you. Henceforth shape your life like one that is old. Curb your ambition. Be content with a small practice. Reduce your expenses. Give up your night work. Decline confinements. Take a long vacation in summer. Retire early. Eat abstemiously. Drink not at all. Sell your horse. Take a great deal of moderate exercise in the open air. Watch the functions of the skin. Guard against a chill. Cultivate an even disposition. Study to be quiet.—*Maryland Medical Journal*.

THE City of Cleveland has enacted a city ordinance that fixes the license law tax at \$300 a year for astrologists, fortune-tellers and seers.

THE new drug company, established under the sanction and encouragement of the State Pharmaceutical Association, is getting into shape for active operations. Headquarters have been secured in the thirteen-story Guaranty building. The incorporators are Messrs. Stoddart, Peterson, McArthur, Smither, Gregory, McEachren, Hosmer, Perkins, Liebetrut, Reiman, Tilma, Anthony, Hayes, Lockie, Craddock, Kreuz, Kaestner, Rogers and Lustig, of Buffalo; Dalton, of Syracuse; Schnell, of Binghamton; and Osmun, of New York. C. O. Rano has been mentioned in connection with the secretaryship and general management.—*Buffalo Druggist*.

THE liability to prosecution for damages in abdominal surgery was recently discussed in the *New York Medical Journal* by Dr. Cyrus A. Kirkley, of Toledo. He said that the average jurymen looked upon the medical expert as a witness having a bias for the side calling him. After setting forth the reasons for a reform in the matter of medical expert testimony, he commended the plan adopted in England, of having all the medical witnesses of both sides confer together before giving their testimony, and suggested that if the court were to appoint a medical commission to hear and pass upon the medical points involved, some of the present abuses would be avoided. He also quoted a legal opinion to the effect that a surgeon, operating in an emergency by abdominal section upon a patient who had no chance for life without such operation, should not be liable in damages if this view of the urgency of the case were concurred in by other well-qualified practitioners.—*Medical and Surgical Reporter*.

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Original Communications.

ACUTE EPIPHYSITIS IN INFANTS—NONTUBERCULAR.¹

By NELSON G. RICHMOND, M. D., Fredonia, N.Y.

ACUTE epiphysitis is an acute inflammation of the epiphyseal ends of bones before they are united to the shaft or diaphysis. It is a very rare disease. It is very fatal.

On February 7, 1896, I was called to see Edith J., aged 5 months, who, with her twin sister Marjorie, was suffering from acute indigestion and diarrhea. A change of diet was followed by immediate improvement. February 11th I was called again to see Edith and found her with some fever and a swollen right knee, which was painful on motion. A diagnosis of rheumatism was made and she was placed upon five-grain doses of sodium salicylate. On February 12th and 13th she showed improvement. The case was not under observation for the next week.

February 21st not feeling at rest in my mind, in the absence of any report, I called at the house as a precaution. I found that an abscess had broken that morning, the sinus opening just above the patella. There was also fluctuation just below the head of the tibia. A free incision was made over the point of fluctuation and an ounce or two of pus obtained. The bottom of the abscess was so near the posterior surface that a counter opening was made in the calf of the leg. Thus drainage was obtained directly through the leg. Both places were syringed with hydrogen peroxide; iodoform gauze was used for drainage and constitutional remedies and diet were prescribed. There was an apparent physical improvement and closing in of the sinuses—the posterior one being allowed to heal—until March 7th, when the knee was found more swollen and darker in color. The sinuses were syringed with a solution of permanganate of potash. March 8th, improvement. March 9th, called 4 A. M., baby for a few hours had been growing restless and was crying. The leg was swollen and the left iliac region was hard. On dressing the wounds drainage was found deficient in the upper sinus. In the evening consultation was held with Dr. A. W.

¹ Read by invitation before the Medical Society of the County of Erie, June 9, 1896.

Dods. The abdomen was then found tympanitic over the entire region and a marked loss of strength was apparent from the morning visit. Free incisions with a view of establishing freer drainage were decided upon as the only measure which might avail in saving the child's life.

March 10th, found little patient with a weak pulse of 180 and respiration of 80. Veins were blue and full. There was projectile vomiting; pallor marked and symptoms of final dissolution were prominent. With Dr. Moore assisting us and a perfect understanding that the child might not survive the anesthetic or operation and probably would not live twenty-four hours, chloroform was given. Under it the pulse came down to 120 with no loss of strength. An incision was made in each case down to the tibia and femur; the periosteum was split and the incision carried to the medullary canal. Evening, no loss of strength from the operation. Condition no worse. March 11th, pulse, 175 to 200 and weak; respiration, 60 to 90. Sleeping quietly most of the time. Taking nourishment. Wound dry. Hot bichloride dressing used and changed frequently. March 12th, pulse, 160 to 180; respiration, 50 to 80. Syringed with hydrogen peroxide. Leg still swollen and cellular tissue involved. Secretion from wounds scanty. A voluntary movement from bowel. March 13th, pulse, 160 to 186; respiration, 50 to 72. A zone of hardness and redness extending over descending colon has been apparent for past forty-eight hours and is now marked. The cellulitis of the leg has increased. Incisions are not secreting as well as hoped. The general peritonitis is apparently giving place to the circumscribed cellulitis. The incisions were washed daily with peroxide and hot bichloride dressing kept up. Hot dressings of cotton, saturated with hamamelis were kept over the region of the cellulitis. At 4 P. M., has vomited the barley gruel and top-milk mixture, also the egg albumin. Quieter than yesterday.

March 14th, A. M., pulse, 150 to 176; respiration, 50 to 60; a quiet night; no vomiting; omitted dressing; less cellulitis in leg; abdomen still hard and red; a voluntary passage; witch-hazel dressing kept up. Night, pulse, 150; respiration, 45; moderate vomiting; child quiet.

March 15th, A. M., a good night; pulse, 130 to 150; respiration, 40 to 55; a reduction in frequency of both pulse and respiration from day to day. Coughing causes pain, although baby is moved with less pain. The cellulitis is disappearing from abdomen. The leg is less swollen and the wounds are healthy: no pus; dressing omitted. Night, pulse, 160 to 184. Vomited once today. Pulse highest at time of vomiting.

March 16th, washed wounds with peroxide and dressed with hot bichloride—the first time in three days. No pus. Wounds covered with healthy granulations. Improvement in swelling of the leg and groin. Night, pulse, 144 to 156; respiration, 40 to 50; a good day.

March 17th, was called early to see little patient. She had vomited

twice during the night and was very drowsy. Had slept eighteen hours out of the twenty-four. There was extreme pallor, and yet a dark hue to skin of the face. At times breathing quietly and 40 a minute. Next minute catchy and 90 to 100. Pulse, 150; then 180, pounding and remittent. Opened wounds and found lower one clean and upper one producing pus. I incised again to the bone, washed with peroxide and dressed. 10 A. M. there was a convulsion. Fontanelles distended. Still in stupor. Respiration one minute, 148 to 160, next minute 50. Noon, failing. Stupor more marked. One more convulsion. Died at 1.30 P. M., apparently from septic meningitis.

In looking up the literature of the subject I have considered acute "arthritis of infants," "acute osteitis of infants," "acute osteomyelitis," "acute epiphysitis of infants" and "periostitis."

In Volume XXXI. of the *Medical Record*, 1887, Dr. V. P. Gibney reports a case beginning at six months of age and dying at four years and three months of tubercular meningitis. An autopsy confirmed the diagnosis. A few scattered tubercles were found in each lung. It is more than likely that this was tubercular from the beginning. If so, it hardly belongs to the class of cases being described. Gibney follows European observers in using the term epiphysitis. He also quotes Thomas Smith, who in 1874 reported ten cases in which the hip-joint was affected.

The *Cyclopedia of the Diseases of Children*, edited by Keating, published in 1890, gives a list of thirty-four cases. Undoubtedly the cases above mentioned are included in the list of Keating's. The mortality of these thirty-four cases was 45 per cent. One of the infants required an amputation of the leg. The ages were four, eight, ten, twelve and nineteen days to thirteen months.

Under Periostitis, Ashby and Wright, edition of 1896, describe a class of cases rare in infancy and not occurring in adult life. They mention it as having been seen only twice under two years old.

Watson Cheyne mentions a case of Rosenbach's in which periostitis occurred in utero, but this was considered to be an acute osteomyelitis "epiphysitis."

Mr. McNamara, Mr. Tubby and others believe that all these cases really begin as an inflammation of the epiphyseal line and that the mischief spreads downward and upward both beneath the periosteum and in the medulla. Ashby and Wright deny that this is the universal way, although allowing that it does occur.

Ashby and Wright also describe a syphilitic epiphysitis as occurring near the epiphyses in the long bones, especially at the

lower ends of the humerus, femur, radius and tibia, in infants who are suffering severely from hereditary syphilis. They also differ from all the authors consulted, who either say nothing or who speak of its rarity, by saying that acute osteomyelitis or acute epiphysitis is not an uncommon condition.

Under acute suppurative arthritis of infants, they give credit to T. Smith, of St. Bartholomew's, for first describing the disease, and speak of it as of fairly frequent occurrence.

I desired to get some idea of the frequency of this disease in private and hospital practice at the present time, at least the frequency of its recognition; also the proportion of cases of acute epiphysitis to births. Accordingly I addressed twenty-five letters to some of the leading physicians in general and obstetrical practice in Buffalo, Syracuse, New York and towns throughout the state. I also made a somewhat similar inquiry of some specialists in pediatrics. I received in reply definite answers from physicians having had from 100 to over 3,000 cases of obstetrics in their private and hospital work.

The total number of obstetrical cases thus reported was over 14,000. Some with very large obstetrical practices and holding the chair of obstetrics in the first colleges of the state, report having had no cases of epiphysitis. Not having given their obstetrical experience in figures the above summary does not include their list. No one of those reporting the above 14,000 births could recall a case of epiphysitis, or was aware that they ever had one, except Dr. J. G. Thompson, of Angola, N. Y. He reported two cases: one, an Indian child of two months, which was lost sight of; another, a white child, was born with the disease and died at three months of phthisis.

The service of Dr. Lake, of Gowanda, N. Y., in the Cattaraugus Indian reservation, leads him to say that tuberculosis of today is only a sequel to syphilis a decade ago. From the lack of continued observation and the history, it is more than probable that this Indian child had the tubercular form; or it might have had epiphysitis from hereditary syphilis. The white child was born with the disease and died at three months of phthisis. In case they both are tubercular they should be excluded from this list.

Dr. Louis Fischer, whose specialty is pediatrics, seems to have an experience differing from the other observers, as he reports the number of cases in his hospital and dispensary practice as being 10 per cent. He quotes ages, however, up to 9 and 10 years. He

thus confirms the quotations already made from Ashby and Wright as to frequency. Fischer believes epiphysitis to be connected with or found with "growing pains" of children and usually relieved by salicylic acid. In this opinion he is backed by no less an authority than Ashby and Wright, who describe "growing fever" under the head of epiphysitis as found in children from 7 to 15 years.

From the fact that this paper is dealing with the disease in infants and that infancy can hardly be said to extend beyond two years and that Ashby and Wright in all their classification describe the disease without designating infancy, the clashing of these authorities with some of our conclusions is not as great as would appear.

Of the thirty-four cases reported in Keating's *Cyclopedia* the hip was primarily affected in 11 cases, the knee in 14, the shoulder in 5. In one case both hip-joints were involved when first seen; in one the hip and knee, and in an infant twelve days old many of the epiphyses were found infiltrated with pus in post mortem.

The disease most commonly attacks the head of the femur, the upper end of the tibia or the lower end of the femur. The cause has been described in only two or three instances. In these it was traumatic. The disease begins as an acute congestion of the blood-vessels of the epiphysis, quickly resulting in inflammation and pus. The pus may quickly involve the joint, even by a pin-hole opening and is the more likely from its proximity, the cartilaginous structure of the epiphysis and the fact that the epiphysis, in infancy, is incorporated in the synovial sheath.

The pus without invading the joint, or even after it has occurred, may burrow along under the periosteum, breaking through at some distant point. Or it may involve the diaphysis, or some neighboring joint. Or it may be absorbed into the general system, as in the case related, resulting in peritonitis and meningitis. The staphylococcus aureus and albus have been demonstrated in bones affected with this disease and it is probably due to these microbes that the general invasion and sepsis occurs. Necrosis of the epiphysis quickly follow this destructive change. If the child survives the attack, deformities and subluxation usually result; rarely ankylosis, in those cases where the joint has been involved.

The epiphysis has been explained as the starting point of the disease, as it is here that the centers of ossification are the most vascular. Thus far investigation seems to show that the pathology

is the same as that of acute osteomyelitis. Others say acute infectious osteomyelitis. Others still, that it is a pyemia of bone. The disease runs a rapid course. Cases have proved fatal in a week. Often an abscess forms and opens within this time. The symptoms ushering in the disease are fever and restlessness, pain on being moved and swelling of the joint. There is flexion of the affected limb. The disease with which it is most likely to be confused is acute articular rheumatism. At first it may be impossible to decide. Epiphysitis is more apt to involve one joint; is less migratory; is more rapid in its course and in case of suppuration the skin could be expected to assume a darker color. The differentiation will probably have been made before pyemic complications arise.

One aim of this paper is to come to the conclusion whether there is an epiphysitis nontubercular or not. This case cited was a well-nourished child, one of twins and the stronger one, but there was no history of tuberculosis on either the father's or mother's side. From the well-established fact of the hereditary nature of the constitution which readily gives fertile ground for the bacillus tuberculosis and from the cases with a tubercular history, it is very certain that there is an epiphysitis of a tubercular nature and it is probably more common than the nontubercular form.

Fischer considers many cases tubercular, others rachitic and finds the disease mostly in bottle-fed babies. Gibney says: "There is only one case reported where it has been found that the disease was tubercular." A. B. Judson says: "It may therefore be believed that some of the cases of so-called diastasis attended with suppuration are simply instances of an acute epiphysitis. Keating's work describes this disease under "Nontubercular disease of joints." It undoubtedly voices the truth when it says: "There is no question that there is an epiphysitis of tubercular origin, in fact many cases of strumous disease of the bones entering into the formation of joints begin in or about the epiphysitis, but the class of cases now referred to do not belong to this category." Ashby and Wright describe the disease fully, but do not distinguish between the disease of infancy and childhood, nor between the tubercular and nontubercular form. Hirsch does not mention epiphysitis in the edition which I have. Osler's Practice of Medicine, under the title, Acute necrosis, or Acute osteomyelitis, speaks of the condition as sometimes occurring in the lower end of the

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femur or head of the tibia and as being sometimes mistaken for rheumatism. One observer gives under the head of causes or varieties : (1) Tubercular, including the so-called strumous diathesis ; (2) Syphilitic ; (3) Injury during delivery by traction or subsequent thereto.

The successful treatment of this disease depends upon an early diagnosis. The constitutional treatment is such as would present itself to any intelligent practitioner. Jacobi, theoretically, would advocate phosphorus internally, if cases of a subacute variety could be found.

The real treatment is surgical. A free incision should be made down to the bone, the periosteum slit and the bone or cartilage freely opened. Free drainage is the thing to be attained ; hot bichloride dressings are the best to maintain it. This incision should be made early. A delay of twenty-four hours may mean the involvement of a joint. The nidus may be in the periosteum, or underneath the epiphyseal substance or in the diaphyseal side, but the nearness to the joint, the epiphysis being included in the synovial sheath and the cartilaginous character of it, make it absolutely essential to establish free drainage if the joint is to be saved.

The necessity for early action appeared in the case cited. The opening above the knee apparently gave rise to all the subsequent trouble. The incision below the knee, which was made early, was very tractable. From the authorities cited, from the expression of opinion of those sought ; from the rapidity of the inflammation extending to and involving the joint ; from the fact that it presents all the symptoms of acute osteomyelitis, resulting in early necrosis, I believe that we are justified in maintaining that (1) There is an acute epiphysitis in infants of a nontubercular form ; (2) That there is a tubercular, also a syphilitic form, both hereditary, in infancy and childhood ; (3) That epiphysitis is a rare disease in infancy and a more common disease in childhood ; (4) That both the tubercular and nontubercular forms are more common in hospital than in private practice ; (5) That undoubtedly many cases of arthritis are primary epiphysitis.

Since writing this paper I have received a reprint from the pen of my friend Dr. Wisner R. Townsend, of New York, the original article being published in the *American Journal of the Medical Sciences* of January, 1890. The paper is on Acute arthritis of infants. He prefers this title, although he describes the epiphysis as the starting point and quotes many of the authorities this paper has. From

his own experience in the Hospital for the Ruptured and Crippled during the previous year and the experience of his friends, he gives the history of nineteen cases. Four of these nineteen cases give clear histories of phthisis in one or both parents, or a near relative. In others the history on this point is negative. Six cases were fatal and in two more the results were not given. He reports in all seventy-one cases including his own. This number includes the greater portion of those reported in this paper. The mortality of the seventy-one cases is forty-five per cent. His paper is an admirable one and his conclusions do not clash with the conclusions of this paper. It is only a matter of surprise that he has the opportunities for studying so large a number of cases, in so short a period, when the disease is so uncommon and the literature so scanty and uncertain.

NOTES ON PREVENTION AND EARLY TREATMENT OF MENTAL DISEASE.¹

By ARTHUR W. HURD, A. M., M. D., superintendent Buffalo State Hospital.

THE question of prevention involves a brief consideration of the periods and epochs in which nervous and mental disease is most likely to appear in the human organism, especially in those whose heredity is bad. Attention to this point, when we have under consideration patients with an ancestry afflicted with epilepsy, insanity, alcoholism and the like, may lead to such measures as will avoid an attack of mental disease at some of the critical periods.

The period of most rapid growth of special sense-education, of coördination and of speech, is from birth to seven years, and in this, as we shall see later, many of the neuroses make their appearance. To Dr. Clouston much is due for valuable work in this field.

It is interesting to note that perfection of form and size is not always coincident with maturity of function, as, for instance, the brain, up to seven years of age, grows nearly to its later full size, but it does not reach its perfection of function until about twenty-five. It would seem that in coming to perfection it is not the quantity so much as quality which is, in the years of adolescence, perfected. The blood corpuscles and blood vessels in their struc-

1. Read before the Medical Society of the County of Erie.

ture are, probably, at birth as perfect as in later years, but of the brain and nervous system we find that many years, almost twenty-five, are needed to complete their perfection of function.

It is also interesting to note that it is in these tissues (which are latest developed) that diseases which may be traced to a bad heredity are prone to make themselves evident. It is during the long period of gradual coming to perfection of the nerve cell, as has been said, that hereditary influences for good or evil come most into visible play.

Nature provides different periods when the different organs and functions of the body shall come to maturity, and has retained a regular and healthful sequence in which the powers of the human being shall be developed. It is often unfortunate that certain capacities or powers are developed outside of their regular order or sequence. The stimulation and development of the emotional or sexual or imaginative qualities before the bringing to full maturity of the muscular system, has often resulted in ill-balanced youths, in precocity of intellect, in nervous disease and in premature decay. If we can be on our guard against the development of certain functional neuroses at different periods of life in children who have a history of nervous troubles or of insanity in their ancestry, we may do something in prevention.

First, we have the formative and embryonic state. In this stage, preceding birth, it is when hair-lip, deformed and cleft palates, spinabifida, club-feet, malformation of organs, cephalic deformities and the like are found.

The second period of which we speak is from birth up to seven years of age. It is the period of the most brain growth during life. It is the period when the special senses are being educated, when speech is being acquired and when the infants are learning to coördinate muscular movements, and in this period it is that we are most to expect the development of rickets, of night terrors, convulsions of teething, infantile paralysis, epilepsy, general backwardness of speech, stammering, squinting of the eyes, a strumous condition, ophthalmia, various forms of skin diseases, liability from nervous causes to sudden rises of temperature and great susceptibility to attacks of all zymotic diseases, delirium at night with low temperatures, tubercular meningitis, hydrocephalus and the like.

From seven to thirteen years of age may be called the period of coördination of motion and emotion, when there is going on,

along with the development of the body, a development of mental qualities as well, and in this period we are apt to have developed chorea, epilepsy, asthma, sleep walking, headache and eye troubles.

From thirteen to twenty-five years we have the period of puberty and adolescence, and in this also we find epilepsy developed ; asthma, chlorosis, mental defects, hysteria, migraine, adolescent insanity, tendency to outbursts of temper, perversions of the moral sense, perverted sexual instincts, arrested development—apparently both bodily and mental—acne, and possibly phthisis. Sometimes the lower or more animal elements of the individual nature become fairly well developed, and then stops the higher cerebral elaboration which marks the higher intelligence of maturity, and we have as a result the shiftless “ne’er-do-wells,” the “grown-up children,” who are impulsive, quick in temper, lacking in judgment, the defectives of the world, who require the supervision of their stronger brethren. It is this class which largely makes up, it is supposed, the “submerged tenth,” to use a term coined, I believe, by General Booth.

The power of attention, memory, reason, volition, and the like, may vary within reasonable limits, but nature sets a reasonable sequence in which they shall be developed. The boy who develops a great capacity for solving amazing problems in mathematics, the prodigy of intellectual activity, is one-sidedly developed, and is apt to wear out his cerebral force long before the time when it should be at its highest point of development.

It is essential for the family physician who has such subjects under his care, to maintain a wise supervision of the education and development of such children, for in these cases of bad heredity often a judicious course of life and training will avoid an attack of nervous disease, or even insanity, and this is of much more moment than the treatment of it after it has been established. As has been said, when the period of adolescence is reached “we hear from our grandparents ;” in other words, it is in this period when defects of heredity are most likely to crop out.

There are insanities of adolescence, of pregnancy, lactation and senility, all of which are to be looked for by the family physician in subjects predisposed thereto, and in many cases avoidance can be obtained, for being “forewarned is forearmed.”

We must remember that in adolescence the condition is one of mental and bodily development, of extension, of growth and evolution ; whereas in senility there is involution, decadence and

diminution of activities, both mental and physical. In the former we must avoid excesses, errors of development, undue strains, either in school or in responsibilities, and in the other the energies must be directed to keeping up the waning powers of life at as great a level of effectiveness as possible.

In this connection the recent studies in psychology are of interest, and when fully worked out should be of great practical benefit. To Prof. G. Stanley Hall we must acknowledge our indebtedness for his great labors in the field and for suggestions made use of in this connection. Many of the problems of the new psychology, so-called, seem trivial and their practical utility obscure for the present, but no one can tell where or when the application of scientific facts accumulated may possibly be made.

The child is extremely active as regards his muscular system, as every observer knows. There seems to be, as proved by recent psychological experiments, a direct connection between muscular action and thought, and the curbing of muscular activity in childhood is to be deprecated. Does anyone doubt that muscular action accompanies mental exertion, it is only necessary to see a roomful of children put to writing a certain form or article. The mental exertion evidences itself in cramped fingers, crooked postures, scowling, placing the tongue in one cheek, screwing up the mouth, twisting the limbs, and the like, and as many different apparently unnecessary muscular movements as there are children in the room. This condition lessens with the gradual growth and discipline of the brain, but even in the most cultivated oftentimes there still linger "habit-spasms" of speech, gesture, articulation, and the like, which persist often into adult life.

And in this connection it is well to note, as has been pointed out by Professor Hall and others, that intellectual work is not in itself harmful. With the development of civilisation it seems that there is not now a shortening of the average duration of existence, but perhaps rather a lengthening, and we see, too, an extension of the period of intellectual absorption and of study, the period of so-called education.

Formerly a child went to school at five or seven years of age and ceased early, perhaps from sixteen to eighteen years of age. Now the period of education in schools is extended in both directions—downward by the Kindergarten and upward by the universities—so that under modern conditions many children commence education at two or three years and extend it to twenty-five or

thirty years of age in their university or post-graduate course. And this extended period of preparation seems not to result in deteriorated health if the studies of childhood and youth are directed in proper channels, and if the physical condition in the meantime is carefully preserved. Ordinarily the brain, if unexposed to undue influences and inheriting a sound organism, is able to withstand the excessive evolution which occurs in the period of adolescence, but those with a neurotic or insane heredity often are unable to withstand this strain, and consequently at this period show eccentricities, excessive activity, motor, muscular, and the like, and break down.

It should be a matter of interest to the physician that these cases should pass in safety this period. To such patients the rush and competition of the public school, where all grades of intellect, all brains, no matter how varied in strength or how diverse in capacities or powers of resistance, where all are placed at the same tasks with the same struggle for supremacy, is probably one of the poorest methods of development. Their education should be special and individual and not general. As a rule, the memorising of facts or other purely intellectual processes involved in grasping abstract ideas, together with a sedentary life and the confinement in doors, is not the ideal mode of training. The development which comes from manual exercise, from the study of natural history in the fields, from the study of mechanics in the workshop, is best suited to develop symmetrically the different parts of the mental organism.

Could the physician always see patients in the early stages of illnesses which lead later to different forms of insanity, it is probable that many cases could be prevented. No one can tell to what lengths of mental disturbance an apparently slight illness may lead, and a slight review of some of the usual bodily conditions which precede and accompany mental disturbances may be, while commonplace, yet useful.

Among the first of the conditions which frequently precede mental disturbances I will mention disorders of sleep. This is a well-known fact, but I mention it because it is brought home to us constantly and is a condition which, if not remedied, always leads to serious conditions, if not actual insanity. And by disorders of sleep I do not restrict the term to mere insomnia, but also to include other unnatural conditions, such as carrying business worry through the night, being unable to throw off the burdens of

the day when rest is sought; uneasy, restless sleep, talking in one's sleep, a sense of exhaustion in the morning and a recurrence of unpleasant dreams. All this results in a condition of nerve tire and exhaustion, in which the refreshing buoyancy of life is lost.

One of the recent writers on psychology has said that from the surplusage of energy, such as is felt in the morning after a refreshing night's sleep, is built the progress of the world; that much of our vitality goes to support life, to maintain one's position, to acquire food and the absolute necessities of life; but that it is from this elasticity of spirits in excess, this surplusage of energy, that we obtain our accumulated store, if we may so speak, from which springs progress and the development of new ideas. And while this idea may be somewhat fanciful, it is, however, a useful one to bear in mind. For psychology is teaching us, among other things, that the material aim of bodily health is happiness for the individual. A more close laboratory study of the connection between mind and body reveals to us how much of disease is dependent upon mental impressions, and conversely how much of health also.

From the standpoint of the psychologist, happiness is the foundation of perfect functioning of the different organs in normal unity. It is unnecessary to illustrate this by mentioning the derangement of digestion in those who are worried by business matters, the interference of the function of the liver by those passing through great anxiety, the development of cancer in the stomach by those who have great mental worry, and it is this fact, however much we may overlook it, which lies at the foundation of the real benefit, which sometimes comes from the mental impressions of miracle cures, faith cure and the like; the real impression on the function of organs which the mental state determines; but it is in functional troubles, as would be expected, that these results are most evident, rather than in organic disease.

And the converse of this is widely and universally true, that the condition of a patient's organism reacts upon his mental condition as well, and the physical basis of mental disease must not be lost sight of. In the treatment of insomnia, the resort to drugs should be the last method adopted. There are many in which hygienic measures, such as regulation of the diet, massage, exercise, removal of unfavorable conditions and the like will bring about relief without resort to hypnotics.

Another set of disorders which frequently precede mental disturbance are disorders of digestion, and this consists, not merely in constipation, but in failure of absorption, failure of appetite, failure of assimilation, hypersecretion of stomach fluids and the like, and this brings to our notice the subject of auto-infection, which is claiming so much attention of late. It is, unfortunately, too often common to see a condition of maniacal excitement existing, in which the patient has been deluged with bromides and other sedatives, in which the skin is hot and dry, the breath offensive, tongue coated and the bowels extremely constipated. In these cases the change that takes place upon restoring the functions of the skin, liver and bowels, is often remarkable.

It is my belief that oftentimes at the beginning of an attack of mental disturbance, attention to the condition of the bowels and skin, by means of hot baths, massage, mineral waters, or even purgatives, together with a light assimilable diet, will render an attack much less acute and much less prolonged in duration.

The subject of auto-infection is one which has but recently been studied at all thoroughly, but which promises much, and treatment directed along these lines has already accomplished a great deal.

Another form of early mental disturbance is that seen in those who have been compelled to work for long periods of time without relaxation, and these cases present symptoms of mental confusion, loss of power of application and attention. The clerk is unable to concentrate his attention so vigorously on his duties, the accountant is unable to add his figures, the lawyer and business man are unable to accomplish the same amount of work in the same time as heretofore, without constant spurring and inciting his nervous system to an exhausting pitch of intense activity. These soon become cases of cerebral exhaustion, which may eventually result in profound melancholia, or remain simple cases of neurasthenia. The tendency in this form of trouble is to make rest imperative by rendering impossible the power to work, and thus bringing about conditions which lead to restoration.

These are the cases in which the physician should interfere, and prescribe immediately an early rest, before the stage of cerebral exhaustion has been reached.

Among other prodromata of mental disturbance are numerous symptoms of cerebral tire, such as worry over trifles, magnifying trifles, great irritability, lack of calm self-control and the equipoise

which should characterise the individual in health, aversion to family, unusual outbursts of temper, fatigue and the like. In these cases, as in the others, there should be distinguished the difference between fatigue and the sensation of fatigue. In some forms of disease, notably in paresis and in acute mania, there is apparently no fatigue felt. In the normal human being there is a natural and healthy fatigue, but when the nervous system has been imposed upon, even to the point of breaking down, the sense of fatigue may be lost, and this distinction between fatigue and the sensation of fatigue is an important one.

A patient says, after an hour's sleep, "I have slept five hours. I am completely refreshed, and I am able to do more work than ever in my life," while at the same time his emaciating frame and his sunken eyes all tell of the real fatigue, which is not felt by him.

It is unnecessary to mention the treatment of all the physical ailments which by inducing general ill-health may cause failure of cerebral nutrition and consequent mental symptoms. The rheumatic, the lithemic, the dyspeptic and cardiac cases all require treatment appropriate to their special conditions and the building up of their general health to avert threatened mental break-down.

Aside from the proper medical treatment necessary to all these cases, there are certain measures which are worth consideration, and which are applicable to nearly all. By these I mean removal from home influences and former surroundings and the substitution of different occupations and companions. In cases of cerebral exhaustion, of beginning melancholia, with depressing delusions, removal from home and family, and the like, is of great benefit. This does not mean travel, but it means a change to a quiet, restful place, free, as far as possible, from the conditions of annoyance and irritation which have prevailed, to the care of some kind, firm companion, who will lead, direct, divert and control, without a show of authority or irritation.

This one measure alone is worth more than all others, to my mind, in incipient mental disease. And it is one that can be tried by many patients, though not by all. The financial condition of many preclude it. When that condition exists, or when a patient of the wealthier class becomes worse and it is dangerous for him to remain at large, of course hospital treatment must be resorted to : but in most of the patients of the well-to-do class, who come largely under the care of the family physician in the stage preced-

ing and during actual mental aberration, this measure is extremely valuable and useful, if carried out under proper medical supervision and proper nursing. The conditions of travel as such, are not, to my way of thinking, of as great value in mental disease as is generally supposed. In certain forms of dementia it may tend to interest or arouse and to incite sluggish mental action, but in cases of acute mania or acute melancholia, travel, new sights and scenes only add to the excitement in the one case, and afford points of fixation for depressing delusions and mental pain in the other.

PARASITES FOUND IN THE VERMIFORM APPENDIX, WITH REPORT OF A CASE.

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LAST October I operated upon a case of appendicitis, of which the exciting cause, at least, proved to be the presence of a living worm in the vermiform appendix. The history of the case is as follows :

The patient, a young married woman, who had always enjoyed excellent health, was attacked in the night with sudden severe pain in her abdomen, more severe on the right side, and extending to the back. Temperature normal, but pulse rapid ; no special tenderness on pressure over McBurney's area. There was, however, considerable vesicle tenesmus. The attack was ascribed to a cold. The next morning she was better and went out of doors, but in the evening was taken with sudden severe pain in the right iliac region. Temperature, 99 ; pulse, 130 to 140. Large doses of morphia were required to subdue the pain. Persistent pain and vomiting all the next day, and great tenderness over McBurney's point. Bowels moved freely several times. Temperature, 101 2-5 in the morning, rose to 103 2-5 in the evening. The patient was removed to the City hospital and operation performed late that night. After making the usual incision and introducing a finger into the abdominal cavity, some slight adhesions were found around the appendix, which were easily broken up, and the appendix, which was highly congested, swollen and filled with a dark fluid and some pus, was removed, the stump being encircled with a silk ligature and the opening touched with a cautery point. The edges were then turned in and the peritoneal covering stitched with fine cat-gut and the abdominal opening closed in the usual way.

The patient made an uneventful recovery, was out of bed in ten days, and left the hospital in two and one-half weeks. In the

extreme end of the appendix, surrounded with pus and liquid feces, was found a living worm, about three-eighths of an inch in length. It proved to be a female *oxyuris vermicularis*, commonly called thread-worm. The appendix was very much thinned at this point, where the worm was found, and it was very evident that a perforation would soon have occurred. As I had never heard of a similar case before, I was interested to learn if these or other parasites were frequently found alive in the vermiform appendix; but, after much investigation, I have not been able as yet to find a similar case. It is said the *ascaris lumbricoides* have been found dead in the appendix, but no living worm of any kind.

Keen and DaCosta make the assertion that living worms are never found in the vermiform appendix. When we consider that the true habitat of the *oxyuris vermicularis* is in the cecum, (the general belief that they reside in the rectum and sigmoid flexure, because they migrate there in large numbers, is erroneous,) and that they have a tendency to migrate, it is to be wondered at that they do not frequently wander into the appendix and cause trouble.

It may not be uninteresting, although not strictly in line of my subject, to state that in my investigations into the literature of appendicitis I have been surprised to find the variety of foreign bodies reported as having been found in the appendix—pins, fish-bones, glass beads, buttons, fragments of straw, nails, screws, cherry stones, pear, grape, melon, apple and orange seeds, beans, date, prune and peach stones, gall-stones, toilet pins and other foreign bodies too numerous to mention.

Dr. William T. Bull reports thirteen cases in which nothing but pus and mucus was found.

Fecal concretions, single and multiple, and of various shapes, sizes and consistence, are most commonly found, and are believed by most writers to be the exciting cause of appendicitis in most cases.

The bacteriological studies of the contents of the vermiform appendix seem to prove the presence there of the *bacillus coli communis*, the *bacillus pyogenes fetidus* and occasionally a streptococcus. What part the *bacillus coli communis* plays in the etiology of appendicitis I am not prepared to say, since Hodenpyle found the microbe in pure cultures in five normal appendices. Dr. Maurice H. Richardson, in his report of a personal experience of 181 cases of appendicitis, states that the bacillus was found in all cultures made from the fluids found in the appendix in severe

cases, and especially the so-called fulminating cases, but did not find it in many mild cases. Azoulay considers "appendicitis to be a form of septic inflammation, clinically and pathologically, the agent being probably the bacillus coli communis, sometimes aided by other bacteria, making the infection complex." He suggests as an explanation of the virulence of a microbe normally found in the intestines, that the epithelium is injured by fecal masses or other foreign bodies, thus removing the barrier to the entrance of the microbe into the adenoid tissue, in which situation they rapidly originate an infective inflammation.

REMARKS ON FORCIBLE BREATHING AND THE PNEUMATIC CABINET.¹

By J. H. PRYOR, M. D., Buffalo, N. Y.

THIS short paper has reference only to the therapeutic value of deep or forcible breathing in certain affections of the lungs. The methods employed have been to instruct the patient how to breathe deeply and slowly, accompanied by directions to take a certain number of long breaths at different times during the day, and the use of the pneumatic cabinet as an aid to secure forcible breathing. The patient is directed to remove or loosen the clothing which interferes with the free action of the thoracic and abdominal muscles, endeavor to practise abdominal breathing and take full breaths, inspiring and expiring the air slowly. At first this exercise may be limited to twenty full breaths, the first thing in the morning and the last thing at night, and the amount of exercise then gradually increased. When the patient can be out of doors it is well to recommend forcible respiration in the open air to be practised in this manner: While walking inspire slowly and count twelve. Let the expiratory effort consume as much time as the inspiratory and gradually increase the period of time by counting thirty at the same rate during each inhalation. Often patients will not follow directions unless the importance of the matter is impressed upon them. Few are accustomed to deep breathing and never breathe properly until taught how. In some cases several deep breaths are followed by dizziness, cardiac palpitation and stiffness of the chest muscles. This is especially true of women who never take any active exercise and have never filled

1. Read before the Medical Society of the County of Erie.

the lungs to the extent of their capacity. In several instances I have been unable to gain compliance on the part of a child and have been obliged to resort to the cabinet or the use of a small wooden tube, which the child will usually blow through most vigorously, because the mind is involved in the effort. Motions of the arms to assist in increased respiratory effort should be combined when advisable. Strengthening of the abdominal muscles and diaphragm may be promoted by what the athlete calls stomach pumping. The beneficial effects of forcible breathing are generally most noticeable in persons who never make the lungs perform more work than is necessary for an inactive physical existence. In certain subacute and chronic affections of the lungs and pleura, forcible breathing is one of the most valuable remedial agents in our possession. The conditions most benefited by its employment are subacute bronchitis, slowly resolving chronic pneumonia, collapsed lung after pleurisy with effusion, limited motion of the lung from pleuritic adhesions, and insufficient oxygenation in tuberculosis pulmonalis. The beneficial effects are produced by an increased supply of oxygen, promoting and equalising the circulation, mechanical distention of air vesicles, stimulating the activity of the glandular system and the flow of lymph by pressure acting as a massage of the lung and so hastening absorption of exudates.

In this climate cases of subacute bronchitis which refuse for a time to yield to medicinal treatment are common. The recovery is usually hastened by vigorous breathing. Often after twenty prolonged deep inhalations the sibilation will disappear temporarily. It is usually followed by expectoration and the disagreeable rattling is relieved. The absorbents are stirred into activity, the circulation quickened and the lungs ventilated by an increased supply of tidal air. There is no medicine so powerfully and safely stimulating as pure air in these cases. I have repeatedly noted the recovery of patients suffering from subacute bronchitis in two or three days, who secured no benefit from long-continued medicinal treatment. Inhalations of medicaments may be combined with deep inhalations, but the open air is preferable if the condition of the patient and the weather will permit. Often perspiration can be produced by deep breathing when medicines fail. When resolution is slow or stops before the exudate of croupous pneumonia has disappeared, no method of treatment is so successful as the one described. The mode of action is largely mechanical, but recovery is hastened by breathing in the open air. This is not

always possible in Buffalo and the question of a change of climate must be considered. The distention of air vesicles, partially closed, by foul indoor air will not be sufficient. When necessary, especially if the patient be confined to the bed, a tin pipe or tube may be arranged to connect with the outdoor air. The patient who has suffered from pneumonia should not be pronounced well until air enters the lungs freely everywhere. Areas of consolidation frequently become the seat of tubercular infiltration. Extra play of the lung hastens absorption of the exudative deposit and distends the collapsed air vesicles. During the last five years I have had under observation several cases of so-called chronic pneumonia. They were not of the interstitial type, but of the variety characterised by continued consolidation of a part of the lung. One had recovered from acute lobar pneumonia four years previously and the others had pneumonia at times, ranging from two years to two months before coming under observation. In every instance the improvement from forcible breathing was most marked. The breath sounds changed slowly but surely from pure bronchial to vesicular or broncho-vesicular. Two of these cases still have a slightly crippled lung, but diligent practice has increased the capacity of the permeable areas and the symptoms of insufficient oxygenation have disappeared. The employment of increased pulmonary exercise to distend a portion of lung collapsed from the pressure of pleuritic effusion has long been practised as a mechanical means. As a rule, the effort is not sufficiently systematic or vigorous. When the method has been prescribed it should mean hard work, not a lazy attempt or play, and the patient should not be allowed to discontinue because coughing occurs. The cough is beneficial and particularly so when there are adhesions. Adhesions should be broken up early while they are fresh. Later they are usually only partially absorbed or stretched. In the majority of cases of collapsed or adherent lung following pleurisy, the crippled area may be made more serviceable and the compensatory work of the healthy portion augmented. Chronic pulmonary tuberculosis is a disease of lulls and exacerbations. Some cases at times suffer mostly from insufficient breathing capacity and consequent imperfect oxygenation. The condition is associated with lack of breath, anemia, cardiac palpitation and digestive disturbances. If the healthy portion of the lungs can be made to perform more work, a positive improvement may be gained and many times in selected cases much may be accom-

plished. It has been claimed that the pneumatic cabinet has been useful in promoting the comfort of consumptives and I have seen marked improvement in some cases, who used it regularly for a time. The patient breathed with greater ease, could exercise more, and better nutrition was shown by gain in weight. The change was probably due to greater breathing capacity and a larger supply of air. Several years' experience has convinced the writer that the best results are obtained by the combined use of the pneumatic cabinet and the patient's own efforts. The pneumatic cabinet affords a means for supplying rarefied or compressed air. Respiration may be rendered difficult or easy and inspiration may be made easy and expiration difficult or vice versa. The patient can be compelled to breathe deeply by rarefying the air in the cabinet and thus removing a part of the atmospheric pressure from the chest-wall, and the expiratory effort may be much increased by directing the expired air into the room. Again, both the inspiratory and expiratory effort may be diminished by differentiation. The other advantages to be gained by the use of the cabinet are as follows: the patient is under control and is forced to follow directions. More complete distention of the lungs can be obtained. The amount of exertion can be measured. The patient learns more readily to breathe deeply by cabinet treatment and the vital capacity increases more rapidly, as shown by the manometer, the spirometer and measurements.

The one great disadvantage in the use of the pneumatic cabinet lies in the fact that it cannot be employed save in the physician's office. Patients are often unable to come to the consulting-room for treatment, or when able to do so the regularity of the treatment is often made impossible by the condition of the weather. The proper place to test the full value of the pneumatic cabinet in the treatment of selected cases is in an institution where the treatment may be prolonged and repeated at will.

56 ALLEN STREET.

OBJECTIVE NOISE IN THE EAR.—Tomka reports the observations of an objective noise in the ear of a boy of six years, due, he thinks, to the contraction of the tensor veli muscle.—*Archiv f. Ohrenh.*, Bd. 40, p. 57.

EUCAINE—A NOTE ON THE NEW LOCAL ANESTHETIC.

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IN A PAPER read at the session of the Hufeland Society, Berlin, April 16, 1896, Dr. Vinci, of Messina, described the chemical composition and properties of a new compound, which, for convenience sake, has been called eucaine.

This new drug, it is stated, is not derived from the vegetable kingdom, but is a laboratory product, and its proper name is methyl-benzoyl-tetramethyl-gamina-oxypiperidine-carbonicacid-methyl-ester, while the salt in use is the muriate which crystallises from a watery solution in permanent shiny scales, and is soluble in water to the extent of 6 per cent. Furthermore, it can be prepared in any quantity, and I believe the intention is to put it upon the market at a cost considerably below that of cocaine.

Dr. Vinci, in his communication, described eucaine as possessing the properties of cocaine as a local anesthetic, but as being less toxic and as having no effect upon the pupil.

Having read an extract of the above paper, and realising, if the statements were accurate, that an important addition had been made to the list of drugs used in ophthalmic practice, Dr. Howe procured a supply from the New York agents, and a 5 per cent. watery solution was prepared. The first day it was used at the Buffalo Eye and Ear Infirmary was in a 5 per cent. solution and in the following cases: (1) Removal of a foreign body embedded in the cornea; (2) removal of granulation after a strabismus operation; (3) the operation of tattooing the cornea.

In the foregoing cases the patients complained that the instillation was followed by a smarting, pricking sensation, lasting some minutes, while it was noted that some hyperemia of the conjunctiva was produced, which remained for half an hour or so after the anesthesia passed away. Anesthesia was complete in from five to ten minutes, none of the patients complaining of the least pain during operative manipulation. It was also noted that the pupil did not dilate, but reacted well to light, and that the corneal epithelium showed no tendency to become sodden, as it does after the application of cocaine.

The day following, Dr. Howe used it with complete success in a strabismus operation, and it has been used for extractions and iridectomies, the patients complaining of no pain whatsoever.

Later, a 1 to 2 per cent. solution was prepared, and it was found that anesthesia was as readily produced without the pricking sensation which follows the application of the stronger solutions, and these weaker solutions are being employed at the Buffalo Eye and Ear Infirmary for the removal of foreign bodies in the eye and other minor operations.

Comparison was made with a 2 per cent. solution of cocaine and a solution of eucaine of the same strength, with the result that the two drugs were of the same value as regards rapidity, duration and intensity of the anesthesia.

Eucaine has been proved to be less poisonous than cocaine. Animals treated with eucaine survived, while animals injected with the same doses of cocaine perished. The heart is in no way influenced by it, while it is a well-known fact that dangerous symptoms often arise from the use of cocaine. Professor Charteris, of Glasgow, has made comparative experiments with the hydrochlorate of eucaine and the hydrochlorate of cocaine. Watery solutions of these salts were injected into guinea-pigs, beginning with a small dose and gradually increasing it until the lethal dose was accurately ascertained. It was found, after many experiments, that the toxic dose of eucaine per kilo body weight was 0.09 gramme, and that the toxic dose of cocaine per kilo body weight was 0.068 gramme. It was also noticed that the physiological action produced by a given dose of eucaine did not follow nearly so rapidly as that which followed a similar dose of cocaine, hence it was concluded that the action of eucaine was slower in onset and less in intensity. Finally, eucaine solutions are stable and permanent and do not decompose, like those of cocaine when kept for a time.

Tropacocaine, another local anesthetic, seems to be midway between cocaine and eucaine. It is less toxic than cocaine, and on instillation produces slight smarting and some hyperemia of the conjunctiva. Mydriasis is usually absent and the anesthesia is more quickly complete and does not last as long as cocaine. Unfortunately its manufacture has been abandoned on account of the difficulty of its preparation.

Eucaine has also been employed in dentistry for the extraction of teeth; 3 to 5 minims of a 10 per cent. solution, injected into each root to be extracted, is sufficient. It has also been used in laryngology and, in the form of an ointment, in painful skin affections.

Berger (*Revue de Therapeutique*, June 15, 1896,) thus sums up the properties of eucaine: He has employed it clinically and thinks it a useful substitute for cocaine. It is little soluble in water, but the hydrochlorate can be dissolved in water to the extent of 6 per cent. It is not so toxic as cocaine, while its anesthetic effect is fully equal to that of the latter; but, whereas cocaine produces local anemia, eucaine produces local hyperemia.

Applied to the cornea, it does not tend to produce desquamation of the superficial epithelium, which cocaine does, and it has the further advantage of not affecting the pupil or the accommodation.

A 1 per cent. solution applied to the eye causes no pain; a 2 per cent. solution causes some pricking.

Anesthesia occurs in a few minutes. The hyperemia of the conjunctiva lasts for half an hour after anesthesia passes off.

The solutions of eucaine are very stable, and so can be easily sterilised.

382 WEST FERRY STREET.

THE RELATION OF NOISES TO THE PUBLIC HEALTH.¹

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THE American people, as has been often asserted, are a patient and long-suffering nation, but when once thoroughly aroused to the magnitude of their grievances, are quick in meting out justice to their oppressors.

The residents of our cities have become accustomed to many inconveniences not experienced in rural communities, and have borne them patiently as an offset to the many advantages which they do enjoy. Such annoyances, or, better, nuisances, as the overcrowded and dark tenement, smoke, dirt and noise, have grown so amazingly in many cities during the past few years as to call for more than personal complaint to regulate them, and are attracting the attention of municipal authorities with a view of dealing with them from a judicial standpoint. Of all such nuisances that of noise seems to be the most difficult to abolish or mitigate, because of its omnipresence and close relationship with the affairs of every-

1. Read at the twenty-fourth annual meeting of the American Public Health Association, Buffalo, N. Y., September 18, 1896.

day life. Many such noises, however, could be easily suppressed and others decidedly moderated if proper attention were called to their uselessness as well as harmfulness, and if the authorities took the necessary steps looking toward their suppression. A certain amount of agitation and discussion is always necessary before such regulations are decided upon and enforced, and even before the community is aware of the fact that such noises are unnecessary and liable to regulation by municipal ordinances.

The only¹ references that the writer has been able to find on this subject are contained in editorials in the *Medical Record* of June 13, 1896, and in the *Maryland Medical Journal* of June 20, 1896, both taking their text from articles published in the New York daily papers of recent date.

It seems to me a propitious occasion, at this meeting of the American Public Health Association, to call attention to this growing nuisance and to ask this powerful body of scientific men to start the crusade against one of the most annoying and harassing drawbacks to comfort and good health in all our American cities.

That it is a question affecting the public health and, therefore, within the scope of this association to consider, the writer believes can be clearly shown, and although not a believer in the possibility of exterminating all noises, still a step in the direction named would decidedly moderate and, perhaps, abate some of the most annoying.

Sounds are impressions produced on the ear by vibrations of the surrounding elastic media, as air or water. Such sounds resolve themselves into two great classes : first, musical notes, and second, noises.

The musical sound is produced by sonorous shocks, taps or puffs, which follow each other at regular intervals with a sufficient rapidity of succession. A noise, on the other hand, is produced by an irregular and confused succession of sonorous shocks. While a musical sound flows smoothly without asperity or irregularity, the noise is jerky and produces jolting and jarring of the auditory nerve. A musical sound produces a feeling of pleasure and a regret when it ceases ; a noise, on the contrary, is attended with a sensation of irritation and a feeling of relief when it is terminated.

Noises are produced by a manifold variety of agents ranging

1. Since writing the above an article has appeared in the September number of the *North American Review*, by Dr. J. H. Girdner, on The Plague of City Noises ; also an editorial in the *Cincinnati Lancet-Clinic*, July 18, 1896.

all the way from the Chinese rattle to the thunderous discharge of atmospheric electricity.

To attempt a classification of the various noises and their provocative agents is a task not easily accomplished, and I trust you will bear with me in my rather hazardous undertaking. Noises may be divided into two great classes, those of nature or natural noises, and those of man or artificial noises.

Noise. { Natural.
 { Artificial.

Natural. { Thunder.
 { Storm.
 { Water.
 { Fire.
 { Catastrophe.

Artificial Noises.	Necessary.	{ Warning.
		{ Traffic.
	Unnecessary.	{ Manufacture.
		{ Summons.
		{ Municipal.
		{ Street Venders.
Traditional.	{ Celebrations.	
	{ Commotions.	
	{ Applause.	
		{ Small boy.

The natural noises stand in close relation with the elements, and may attain a degree of severity and terror surpassing all description. They emanate from sources over which man has but very little control and but slight power to check or to curtail them. They need, therefore, but passing notice and no consideration as regards their treatment. As such we have :

1. The deep, loud rumbling sounds heard after a flash of lightning, caused by the discharge of atmospheric electricity, and known as thunder.

2. The loud, roaring, often tempestuous sounds, due to more or less violent disturbances of the atmosphere, usually producing wind, rain, hail or snow storms. Sometimes they develop into cyclonic storms, passing from the warmer zones in a northeasterly direction and culminate at storm centers, producing such roaring and violent sounds as once heard will never be forgotten.

3. The somewhat musical and rhythmic sounds produced by the rushing, roaring and falling of waters. These sounds are more or less pleasing at the seashore and at waterfalls, but become terrifying and awe-inspiring in times of flood and tidal waves.

4. The crackling, snapping and explosive sounds attendant upon conflagrations.

5. Somewhat akin, though not properly included in this category, may be mentioned the various noises attendant upon catastrophies. As such may be mentioned earthquakes, volcanic eruptions, snowslides, floods, for which man is in no way responsible, and under the second head the collapse of buildings, bridges and other structures, collisions, caving in of mines and embankments, landslides and other accidental and distressing occurrences, for which man is in some measure responsible. These are usually attended with some loss of life and are, therefore, mingled with the groans and cries of the dying and wounded, making them the most dreaded and terrible of all the various noises.

The artificial noises may be divided into (1) the necessary, (2) the unnecessary, and (3) the traditional noises.

The necessary noises may be subdivided into (1) those of warning, (2) traffic, (3) manufacture.

Warning.—The noises of warning are manifested in various forms of bells, gongs, whistles, horns, sirens, and the like. They are a necessary evil to every street car, locomotive, fire apparatus, patrol wagon, ambulance, and their use is being extended to bicycles, trolley repair wagons, and in some cities to physician's carriages. The fog-horns and sirens on shore and on board are equally necessary, and until some other device is invented are indispensable to the safety and protection of many.

These noises all have for a common purpose the prevention of danger to mankind, either individually or collectively, and having a purpose should not be misused or disregarded, but carefully exercised and practised to the least extent commensurate with the public safety.

Traffic.—The noises of traffic are necessary only in so far as when they are reduced to a minimum. Their maximum development does not indicate the size or prosperity of the community, as some writers would like to infer, but a carelessness and perhaps indifference on the part of those either directly or indirectly concerned. The rumbling of cars, steam or electric, over poorly-built roadbeds, the rumbling of loosely-gearred vehicles over roads and defective pavements, the puffing and prolonged whistling of locomotives, the rounding of curves by street cars are productive of extra noises which could be easily, if forcibly, moderated. In this city the noises arising from traffic over pavements is considerably reduced because

of the wide extent of asphalt paving. Nevertheless we are behind some of our neighboring cities in the adoption of the rubber-tired carriage wheel, which in great measure reduces this form of noise to a minimum. These wheels are manufactured on a large scale in a nearby city, and their use should be encouraged by all who patronise this form of locomotion. The preference of the asphalted streets over the cobble-stone pavements has encouraged vegetation on the latter, and on many of our streets in the Elmwood district the grass is growing as luxuriantly as in some of the deserted villages of the far west. The incessant clatter of the gongs on street cars in the crowded business streets can be very easily avoided by the stationing of policemen at street crossings, as is done in this city, thus insuring safety to pedestrians, avoidance of collisions and the non-necessity of the gong. The avoidance of the business streets by the fire department, ambulances, bicycles and unnecessary vehicles of all description should be insisted upon as far as possible, and would relieve the congested business district of much noise, danger and confusion.

The value of real estate on some of our residence streets is seriously affected by the noise of the heavy trolley cars running over badly-repaired tracks and switches and around curves which are not kept properly oiled. The noise of a passing trolley car drowns conversation for the time being and makes veranda life in summer unpleasant and exasperating. Residents of the outlying districts try to secure homes near trolley lines, but try harder to get on streets not having the car service, their excuse being, partly if not wholly, to "avoid the noise, din and confusion of the discordant trolley." Much of this noise can be obliterated by keeping the tracks in good repair, the trucks and journals of the cars well oiled and tightened, and the speed limited in crossing streets, thus calling for less activity of the gong. All necessary noises will then be more cheerfully tolerated and the trolley line streets less discriminated against by home seekers.

The prolonged whistling of locomotives on approaching stations is unnecessary on roads having the block system, and the indiscriminate whistling and tooting of the locomotives in the yards and the steamers in the harbor might also be moderated, if not altogether silenced.

Manufacture.—The noises of the factories, mills, shops and forges, especially in the manufacture of metallic wares, are least liable to moderation, and must be patiently borne by those residing

in their immediate neighborhood. Such factories should not be allowed upon closely settled residence streets, and the windows looking upon the streets should not be permitted to remain open. The plan adopted by Pittsburg, perhaps for commercial purposes merely, of having the rolling mills, forges, blast furnaces along the river banks or in the outlying suburbs, as at Homestead, Braddock and Duquesne, is an excellent one, and is more or less followed by the larger factories in this city.

The Unnecessary Noises.—Summons.—Such noises as the untimely ringing of church bells and the blowing of time whistles in the early morning hours, are no longer necessary in these days of universal time-pieces. In former years, when the time of day was watched by but few fortunate individuals, these noises were a necessity, but in recent years they have given rise to much complaint, and in this city a few have become silenced through the efforts of those who were annoyed and disturbed by them. The ringing of fire alarm bells is a source of much disturbance in many cities, and where a telegraph alarm system exists should be suppressed not only for the benefit of the citizens but firemen as well.

Municipal Noises.—The noisy, rattling iron trucks, used to convey garbage barrels from backyards to the street curb, constitute a source of much complaint, especially when such barrels are removed early in the morning; likewise the heavy and loosely geared street sweepers and dumping wagons as they move along the block pavements. Many other municipal noises could be mentioned which cause vexation and discomfort to those in the immediate neighborhood, especially in the early morning or evening hours.

The Traditional Noises.—By traditional noises I have designated those which are directly produced by individuals, many of which have become engrafted upon American city life. They are a nuisance if not a plague, and should certainly be curtailed if not altogether forbidden. Chiefly among these and enjoying, to a certain extent, police protection, are the cries of the street venders, as the newsboys, bootblacks, hucksters, "old clo. men," ragmen, the corner fakir, and, substituting a bell for the mouth, the scissor grinder, advertising wagons, and the like.

The "street arabs" of our large cities are a noisy and turbulent lot at the best, but when given license prove themselves a positive nuisance. The habit of crying out gruesome and sensational headings found in their papers by the newsboys should not for a

moment be tolerated, and the congregating of these urchins about the street corners, all crying out in unison, should also be prohibited. In many European cities such noises are not allowed and it is doubtful whether the sale of the newspapers is injured by their suppression. Particularly provoking in this city is the noisy lot of newsboys set loose every Sunday afternoon with the New York Sunday papers, penetrating all parts of the city and crying out so lustily that they can be heard several blocks distant.

Celebrations.—The patriotism of the American youth is measured by his ability to make noise on the day of our national independence, and it seems on this day that youth still retains its grasp on the majority of our citizens. The newspapers throughout our land chronicle a long list of accidents on the day following—some the result of personal carelessness, some the outcome of runaways caused by the exploding firecrackers. Although patriotic and loyal to our country, still some other way might be found to celebrate this glorious holiday without the noise, explosions, fires and consequent accidents.

Political and other celebrations call forth much less demonstration, but the rule still holds good, "the more noise, the merrier."

Commotions.—The cries and noises of mobs, street brawls and night-hawks are recognised by our police authorities as unlawful, and offenders are punished sometimes for breaking the peace.

Applause.—The clapping of hands, stamping of feet, use of canes and umbrellas in public places, to express a feeling of gratification or sometimes one of impatience, is as universal, no doubt, as man himself. The writer recalls the disapproval which the stamping of feet always caused one of his professors at college and the expulsion from the class of all those implicated. It is, no doubt, a noisy and offensive custom and distasteful in other ways besides the noise which it creates.

Lastly, we meet the small boy with a thousand and one different ways of making a noise. His ability in this direction seems to be a criterion of his leadership among his comrades, and to rob him of these vested rights, even if we could, would make him less American and also less a boy. There seems to be no remedy but to avoid him, no recourse but his power of endurance, and he bids fair to remain lord of all he surveys.

Sounds which at times partake of the qualities of noise are those produced by domestic animals and birds. Especially annoying is it to be awakened at daybreak by the crowing of cocks, or

during the midnight hours by the barking and crying of dogs or the concerted endeavors of several cats in the back yards. During the day pet parrots and other caged birds add their mite, sometimes their mightiest, to make life serious, and it is a question whether the crowded city is the proper domicile for many of these so-called pets.

We now turn to the second part of the paper and see what effect these varied noises, arising from widely different sources and of various degrees of pitch and intensity, have upon the public health.

The physiology of hearing is briefly as follows: The sound-waves are collected by the pavilion of the ear and conveyed to the tympanum by means of the external auditory canal. The tympanum vibrates in unison or in harmony with its fundamental tone, and these vibrations are carried along the ossicles to the labyrinth, where they are received by the organ of Corti. The impressions are conducted to the end filaments of the auditory nerve, thence along this nerve to the auditory center in the brain, located in the second temporal convolution. Here these impressions are collected, differentiated and interpreted and the conclusions dispatched to the various nerve centers for action. It is generally believed that the tympanum vibrates in resonance with sound-waves by influence, through the action of the small muscles in the middle ear. It is also undoubtedly thrown into vibrations by irregular waves of noise, and these latter demand more complex or irregular action than when the sounds are simple or melodious. The nerve filaments to these muscles acting upon the ossicles are extremely sensitive. Here, then, is one of the points of irritation produced by noises. The other is at the auditory center in the brain, where the complex impressions are to be interpreted. Single sounds call for little activity of the brain centers for their appreciation, but continuous complex noises demand a close application of these centers in differentiating the necessary from the unnecessary sounds, or in the interpretation of certain familiar or expected sounds among a lot of adventitious ones. The sensitiveness of the auditory center is well illustrated by the fact that hearing is the last of the special senses to be influenced by hypnotism, also in the administration of anesthetics; furthermore, that hearing is one of the first, if not the first, to recover after anesthesia, likewise in awakening from hypnotic sleep.

The dangers arising from noises are therefore two-fold. First, at the tympanum, where a certain amount of hyperemia and hypertrophy are liable to result, sometimes even rupture of the tympanum, producing partial or total deafness, and secondly, at the auditory center, where fatigue is apt to follow the incessant activity and irritation of these centers, and a general brain tire or brain exhaustion is liable to result. Whether or not noises are liable to produce inflammatory changes in the auditory nerve, the writer is unable to say.

The effects of noises upon the general system are varied, and in the short time remaining I will attempt only to enumerate the most important.

Noise is conceded to be a great disturber of personal comfort, and the hotel chosen as your headquarters was selected, as stated in the official journal,¹ because it is situated "in the quiet, residential portion of Buffalo, . . . and is free from *noise*, dust and smoke."

Comfort is that state of ease and rest so necessary to body or mind, and is preëminently one of the requisites of good health. Comfort and ease stand in the same relation as their antipathies, discomfort and disease, and if the absence of noise encourages the former, the presence of noise must stimulate the latter.

Noises have a tendency to unnerve an individual, especially when he is engaged upon some work calling for tact, coolness and good judgment. I know of no better illustration of this fact than the means usually resorted to by the rooters in our national game of base ball. At a critical moment in the game all the noise, cat-calls and groans that can be produced, are hurled at the pitcher, with the intention of rattling or unnerving him, and as a consequence he pitches wildly, batsmen are given bases on balls and the game is sometimes won thereby.

Strange noises sometimes produce a feeling of fear or inward excitement, accompanied with palpitation and feelings of distress. Whenever possible, professional men obliged to have their offices in the business district of the city, choose some side street free from traffic, or select quarters in the upper stories of our modern office buildings.

Perfect health demands a certain amount of quiet and repose not alone at night during sleeping hours, but during waking hours

1. The Municipality and County, special number, dedicated to the American Public Health Association, August, 1896, page 147.

as well. The active working brain is just as much in need of rest as are the muscles of the different portions of the body, and, perhaps, the most potent factor in accomplishing this need is to secure freedom from noise. The brain, as a whole, cannot be in perfect repose when certain centers are in a state of action or irritation. The association fibers, connecting all the various centers and parts of the brain, convey the irritation from one center to another and soon the whole brain is in sympathy with the disturbed and agitated center.

Sleep is one of the most important adjuncts to perfect health, and as has been so wisely said is "tired nature's sweet restorer." During slumber the restorative and constructive processes of the system are most actively engaged, and their interference by disturbed and broken sleep is sure to react detrimentally to the general system. The effects of rest and fatigue upon the ganglion cells of the brain and cord have been very carefully studied by C. F. Hodge, whose experiments are most interesting and instructive :

The ganglion cells, the active constituent of the nervous system, are situated in the gray cortex of the cerebrum and cerebellum, gray cornua of the myelon and in the spinal and peripheral ganglia. In the myelon they lie within the peri-ganglionic lymph spaces which vary in size according as the cells are in a state of rest or fatigue. When fatigued the protoplasm of the cells is shrunken and contracted and the lymph spaces are consequently larger and more conspicuous. As soon as the cells regain their normal rest and vigor they resume their usual size and the lymph spaces become correspondingly smaller. The nuclei of these cells behave in exactly the same manner, becoming larger or smaller according to the physical condition of the cells.¹

In other words, "after prolonged rest the nerve cells are, so to speak, *charged* ; they are full and ready for labor, but after a hard day's work, or after disturbed rest, they are *discharged*, shrunken and exhausted." (Gage.)

It is difficult to say just how many hours of sleep are necessary for each individual, but on the whole an average of eight hours should be the lowest limit. The various city noises are quite apt to cut this figure down perceptibly, especially in the early morning hours.

The long continued loss of rest and sleep is in the majority of cases followed by that *bête noir* nervousness or nervous prostration,

1. Krauss, Wm. C. The nerve elements in health and disease. Proc. Am. Mic. Soc., 1894.

or as physicians delight to call it, neurasthenia. Especially is this true of those individuals possessing an inherited neurotic tendency. I need not tell you what this all means, only to say that about the first advice given to the patient is to seek a quiet and peaceful spot either in the country, seashore or mountainside.

The effects of noises upon the organ of hearing itself have been referred to, and as an example the boilermaker's ear may be mentioned. Partial deafness is the rule among these mechanics, and their only hope is to secure other employment not attended with so much noise.

The effects of noises upon the sick are well known and hospitals are usually found away from the noisy districts of the city, or if the growth of the city has crept close to the hospitals the latter are protected by asphalt pavements, courts and by other means. Noises have a baneful influence over the sick, retarding convalescence, producing at times elevation of the temperature, exciting the nervous system and in some cases even bringing on convulsions. It is especially upon the nervous system that the consequences are most pronounced, and in such affections as tetanus, meningitis and encephalitis, the evil effects are most readily seen.

The covering of the pavement in front of houses containing sickness with tanbark is a common custom and only serves to prove some of the facts presented in this paper.

These, then, are some of the most important effects of noises upon the public health, and yet up to within a very short time ago no voice was raised, no pen was stirred in protest against their usurious tendencies. The American people, fast as they are, yet in matters of public health move too slowly and allow great odds to accumulate against them before they take the initiative.

The only remedy that I can suggest to abate many of these noises is to file protests and have your fellow-sufferers do likewise to the city health officer, and if he be the proper person in the proper place some measure of relief will be obtained.

DRIBBLING OR DROOLING OF INFANTS.—Healthy infants never dribble or drool. This condition is due either to disorders of the digestive apparatus or to obstruction of nasal respiration, but is altogether unconnected with dentition.—DE SILVERA in *Lo Sperimentale*.

THE PHYSICIAN AND HIS MICROSCOPE.¹

By A. A. YOUNG, M. D., Newark, N. Y.

ONE of the most expensive and one of the most useless pieces of office furniture that the ordinary physician possesses is his microscope. It usually occupies a most commanding and conspicuous place in the office and decorated with "fuss and feathers"; valueless as an educator, valuable for the macroscopical appearances of the microscope, for it is capable of producing wonder and awe to the office visitor and shekels to the pocket of the physician.

Nothing can be said against the microscope as an instrument, for its value resides in its intelligent use, and unless used intelligently it becomes worse than useless, distorting facts and fancies alike, from which the observer can form no concept, can draw no conclusion save an erroneous one. The physician has to deal with the organic world, with those material forms in which resides that peculiar, unresolvable and unknowable agent we call life, and without which matter becomes comparatively valueless.

The microscope in the department of medicine requires for its intelligent manipulation a familiarity with anatomy, pathology, bacteriology, and last, but not least, biology, which subject scarcely ever enters into a medical college curriculum. We, as physicians, must deal with material forms that are endowed with life, and of that relation which exists between the material form and life we must have some concept, though it be partial and inadequate, for on the relation of things material or immaterial is the development of human thought possible. The life force of the bacillus is doubtless as intricate as the life force of the human subject and may be similar if not identical with it; for what is the body in which the ego resides more than an aggregation of amebæ specialised, and each ameba possibly having an independent life and having reproductive properties of its own. It is with the minute mass of matter, not the molecule, that the microscopist has to deal; he sees its manner and method of growth and not the forces which produce the molecular arrangement of the ultimate particles.

It is not enough that the physician be able to observe and differentiate the various forms of the micrococcus, spirillum or bacillus: he must know as well the habitat, manner and method of growth of each variety. Without this knowledge the revelations of the microscope are no more intelligible than some Egyptian

1. Read at the nineteenth annual meeting of the American Microscopical Society, Pittsburg, Pa., August 19, 1896.

inscriptions. There is a philosophy of microscopy which is equally as valuable as the facts on which it is based, but a philosophy that can only be developed by accurate observation and classification of microscopical data. This work, it is evident, must be performed by the skilled microscopist and not by the novice, in which class the busy practitioner is usually found. In microscopical analysis no element relative to accuracy can with safety be omitted. It matters not though the microscopical accessories be thoroughly cleansed and sterilised, for the results would be equally untrustworthy if the material to be examined be placed in a receptacle, found perhaps in some old garret and half cleansed. Conclusions reached under such conditions must be erroneous. Do you ask who ever allows such procedures? Go to the home of the amateur or pseudo-microscopist, observe his methods and technique and you will have the answer. It is surprising how much we see, how much we assume and how little we know. A young physician asks an older one for the use of his microscope to examine a specimen of urine, assuring its owner that he is familiar with the instrument, having had instruction in college; permission granted, and slide prepared, and the observer exclaims, "The most beautiful specimen of a cast I have ever seen;" the owner of the instrument says, "That looks like vegetable matter and not a cast." "No," said the other, "that is a urinary cast; I have seen many of them." A microscopical examination of the container and its contents revealed a corncob for a cork; what the cast was you may readily infer.

A physician of several years' standing and the possessor of a good microscope at an autopsy of his announced that the patient's death was due to a disease of the kidneys, that she had been passing blood, pus, all forms of casts and other bad material with the urine. The autopsy, however, revealed ulceration with pus formation, degeneration and rupture of the gall-bladder, produced by impacted gall-stones, while the kidneys were practically normal, showing no structural degeneration. From whence, then, came the blood, pus, casts and débris, which was alleged to have been seen? These cases could have been none other than of mistaken identity; something was inferred that did not exist.

The conclusion is therefore reached, justly or otherwise, that the eye and understanding must be educated independently along certain lines before the manipulation of the microscope becomes satisfactory and trustworthy; objects must be seen and known

relatively and in their entirety before being resolved into their component elements; the macroscopical appearance of an object must precede its microscopical appearance.

The physician must know in what menstruum and under what conditions the objects for which he is searching exists or are developed. Neither is it enough for him to know and recognise the various forms of bacilli; he must be able to classify them and know their manner and method of growth, what they produce by their growth and what influence they have upon humanity. This is the philosophy of microscopy as relates to medical science. The microscope therefore becomes to the physician valuable in the degree that he is able to classify and arrange its revelations so that they may be read as from an open book. This faculty means a familiarity with the instrument born of time,—time which the “country doctor” must give by piecemeal, if at all.

I am no pessimist, although I see in a degree the passing of the microscope so far as it relates to the individual work of the ordinary medical practitioner. As already intimated, this passing is induced and sustained by unskilled and untrained eyes, which see much and individualise little.

The structure of microscopy, if it be enduring, must be built upon a comparatively errorless macroscopy. The rank and file still have to learn that the microscope only enables the investigator to continue his eyesight so as to observe the primary structure of an organised mass that would otherwise remain unknown and unknowable.

The first essential, then, for a physician microscopist is the proper use of his eyes, supplemented by a keen intellect; what he sees he must be able to describe accurately, thus differentiating the various forms and figures that appear in the visual field.

Neither is it enough for him to recognise an object in an isolated condition and know its form and construction: he must know as well what relation it sustains to other objects about it. This calls for the exercise of the comparative faculty, the second essential for the physician microscopist; indeed, these two elements may be called his eyes. With these faculties undeveloped, untrained, he may as well be a blind microscopist. What is true of normal vision is preëminently true of aided vision, which aid the microscope is, but it produces changes also in the relative conditions of objects, and of such changes the mind must take cognisance; it is an element too often overlooked. In short, the revelations of the

microscope becomes the alphabet and the systematic arrangement of these revelations in the human mind forms its language, a language that requires study to comprehend; a language also that needs much further development and amplification. Physicians, as a rule, can be novices only in microscopical science, following where others lead; they stand at your feet, at the feet of the microscopists of the world, in the relation of pupil to teacher, asking for more light to illuminate the intricacies of human existence.

Give to them this light; save for them the microscope with all of its powers and possibilities which are vast; prevent it by your efforts from relapsing into a state of "innocuous desuetude."

22 EAST MILLER STREET.

Society Proceedings.

AMERICAN PUBLIC HEALTH ASSOCIATION.

Proceedings of the Twenty-fourth Annual Meeting, held in Buffalo, N. Y., September 15-18, 1896.

FIRST DAY—MORNING SESSION.

THE association assembled in Ellicott Square and its deliberations were presided over by Dr. EDUARDO LICÉAGA, of Mexico, president of the Superior Board of Health of that city.

Dr. STEPHEN SMITH, of New York, the first president of the association, was introduced and made a few remarks with reference to the progress the association has made from its beginning.

Dr. ERNEST WENDE, commissioner of health, of Buffalo, cordially welcomed the association in behalf of the local committee of arrangements.

Report of the committee on car sanitation: This was read by Dr. C. O. PROBST, in the absence of Dr. G. P. Cohn, of Concord, N. H., chairman. The report states that anyone who takes an interest in car sanitation will soon become convinced that there is something lacking in the manner in which cars are cleansed and kept in condition for the traveling public. In caring for these conditions, ignorant and untrained help may and do destroy a great deal that should

be cared for, and thus the expenses of this department are far beyond what is actually necessary.

Observations on the cleaning of railroad passenger cars, by Dr. DOMINGO ORVAÑANOS, of the City of Mexico: To afford any security against contagion or infection from railroad cars, it is necessary that the cleansing operations shall be carried out several times a day. To attain these objects, the author thinks passenger cars ought to be constructed in a very different manner than they are at present. The bed clothing, including the blankets and curtains, should be changed daily, as well as the mattresses.

Possibilities of contagion from venereal diseases in railway cars: This paper was read by Dr. TOMÁS NORIEGA, of the State of Chiapas, Mexico, in which he cited the case of a married man, thirty years of age, who arose from his berth, and as was his custom, washed his face in the lavatory of a Pullman car. Two days thereafter he felt the first symptoms of purulent ophthalmia, for which he consulted a physician. The patient was treated energetically, but in spite of all efforts the right eye was lost. Other similar cases were reported.

Dr. FREDERICK MONTIZAMBERT, of Montreal, general superintendent of the quarantines of the Dominion of Canada, presented the report of the committee on steamboat and steamship sanitation.

AFTERNOON SESSION.

A paper on the Infectiousness of milk was read by Dr. JAMES KENNEDY, of Des Moines, Iowa. Cow's milk alone was considered, since no other kind of milk is used by many infants and adults, and since it is the almost universal, and, under proper conditions, the best substitute for human milk in the feeding of children. In Berlin, in giving the certificates of death of children under one year, the fact must be stated as to whether the child was fed from the breast or brought up artificially. In 10,000 deaths thus reported it was found that two-thirds, or 7,646, were artificially fed. The author emphasised the importance of a sanitary inspection in addition to, if not to the exclusion of, the mere commercial examination.

Report of the committee on animal diseases and animal food: This was read by the chairman, Dr. D. E. SALMON, of Washington, D. C. Animal diseases are now more intelligently managed by sanitary officers than ever before, and the meat inspection service has been steadily extended and perfected. Outbreaks of anthrax

among the domesticated animals were apparently becoming more frequent. The contagion once introduced into a pasture remains indefinitely. A disease so fatal to man and beast should be promptly repressed whenever it makes its appearance and precautions observed to prevent infection of new territory. The report then dwells upon the widespread prevalence of tuberculosis among dairy cattle. Measures for the eradication of this disease have been undertaken by a few states and by a considerable number of cities.

Dr. FRANCISCO DE P. BERNALDEZ, of Mexico, contributed a paper on The study of the pathogeny, etiology and prophylaxis of typhus. This disease arises from a microbe not as yet discovered. Throughout all the districts which are called the hot country in the Mexican Republic the infection of typhus does not exist, whilst in temperate climates, at a higher elevation, it predominates in endemic form.

Report of the committee on nomenclature and forms of statistics, by Dr. SAMUEL W. ABBOTT, of Wakefield, Mass., chairman: The report dealt with the need of a uniform system of classification and nomenclature. Before advising the general acceptance of any one system for general use, the committee recommended that the association collect and compare the systems now in use and employed by the different national, state and municipal authorities in this country, in order that these may also be compared with the systems in use in other countries, so that a general system can be recommended for adoption throughout the states and countries within the bounds of the association.

Dr. EDUARDO LICÉAGA, the president, read a paper on The nomenclature of diseases and forms of statistics. The board of health of the City of Mexico had, from the year 1879 up to the year 1887, classified the diseases resulting in death in a certain number of groups. From the year 1888, he, as president of the board, proposed the adoption of the provisional nomenclature adopted by the Royal College of Surgeons of London. This nomenclature was adopted because it was the one then followed by almost all the English-speaking nations, and in order that tables of mortality might be compared with those of such nations.

On the need of uniformity in the meaning of the term still-born, by Dr. JESUS E. MONJARÁS, of San Luis, Potosi, Mexico. The laws of different countries were cited by the author, after which he proposed the following: (1) That there shall be included

under the term stillborn all children of more than six months of intrauterine life that are born dead. (2) That there be added to the nomenclature of the causes of death the term that shall represent all children that die within seventy-two hours after birth without known cause, and that they be designated by the term "died at birth without known cause." (3) That the committee on nomenclature of diseases and forms of statistics be authorized to recommend this modification of the existing nomenclature in all the countries of the American continent, and (4) that these modifications once adopted in said continent, the same would doubtless be accepted in Europe and elsewhere.

Dengue: A paper on this subject was read by Dr. HENRY D. HORLBECK, of Charleston, S. C. The disease was defined, after which the author said the object of the paper was to put on record a brief account of a widespread outbreak of this malady, which occurred in Charleston in 1895. Commencing in July and lasting until November, it is estimated that 50,000 of the inhabitants were afflicted with the disease. Men and women, seventy years of age, and infants, had it, and yet the malady was not prevalent a few miles distant. Notwithstanding the suddenness of the onset and severity of the attack, death is rare.

Municipal responsibility for healthy school houses: Mrs. ELLEN H. RICHARDS, of Boston, contributed a paper on this subject. Local agitation of this question might do some good, but to the author it seemed as if the time had come for some concerted action compelling city authorities to keep school houses in good condition. A most efficient way would be to bring to bear the power of the law and to insist that such buildings as are flagrant violations of the law shall be closed, as private buildings would be.

EVENING SESSION.

Addresses were delivered by the MAYOR of Buffalo and the Rev. THOMAS SLICER, both of whom spoke of the benefits of sanitation.

The president, Dr. LICÉAGA, then delivered his address. He first thanked the members for the distinguished honor conferred upon him, after which he said that the preservation of health, the prolongation of life and the physical improvement of the human race were the ideal principles that ought to be kept in view.

Coming to the question of epidemics, President LICÉAGA stated that they can be suppressed at their inception by isolating the

first patients and disinfecting the objects which they have contaminated, whether these objects be the clothes they have used, the furniture found in their respective rooms or the rooms in which they were kept during the disease. Isolation in cases of diphtheria must be absolute and complete.

A proposition which demanded special study was the technique of disinfection.

Lastly, the speaker cited examples to show the advisability of organising a committee to study the periods during which each contagious disease is transmissible, and the time during which every patient who has suffered from such disease is dangerous to the community.

SECOND DAY—MORNING SESSION.

Report of the committee on the disposal of garbage and refuse: This was presented by Mr. RUDOLPH HERING, C. E., of New York City, chairman, and was followed by a paper entitled Disposal of the garbage and waste of the household, by Col. W. F. MORSE, of the same city. In considering the matter of the final disposition of garbage, the author said that no record of methods could be complete unless those means were considered by which the waste of the family was destroyed in the home where it was produced. An apparatus in the form of a carboniser for the disposal of garbage was described.

Dr. N. E. WORDIN, of Bridgeport, Conn., read a paper entitled A plea for the domestic disposal of garbage. Fire is the best destroyer. It leaves no filth and no germs behind. The different methods of disposing of garbage were tabulated as follows: (1) The most wasteful—sea disposal. (2) The most offensive—hog feeding or fertilisation. (3) The most economical to operate—reduction. (4) The most sanitary and complete—cremation. Reduction and cremation were the only methods worthy of consideration for any city.

Dr. WM. S. TREMAINE, of Buffalo, explained the results of practical experiments with one of the garbage crematories in Buffalo. This crematory successfully disposes of garbage and excrement without any odor.

Report of the committee on transportation and disposal of the dead, by the chairman, Dr. CHARLES O. PROBST, of Columbus, O.: The committee is of the opinion that it is quite possible to so prepare a body, dead of infectious diseases, with promptitude and

but little expense as to make it transportable without any danger of transmitting infection, and it is the duty of the association to develop the simplest methods by which this desirable end could be obtained, in order that the sentiment of respect for the dead might be maintained without any danger to the living. If, however, all dead bodies are to be allowed transportation, it would be necessary to provide that the preparation of bodies, whose death resulted from contagious disease, shall in each instance be under the direct supervision of the health authorities.

The quick or the dead : Dr. BENJAMIN LEE, of Philadelphia, read a paper with this caption. Health authorities should be very slow in relaxing any of the precautions and restrictions at present in force attending the transportation of those dead of contagious diseases. He thinks the true solution to the question of transportation is to be found in the cremation of all bodies dead of contagious diseases.

On measures for the prevention of blindness, by Dr. AUGUSTIN CHACON, of the City of Mexico: Statistics, cited by the author, prove that a great deal more than half of the cases of blindness might very probably have been avoided, if proper measures had been taken in time. The two diseases of the eyes which cause the loss of sight in the largest number of patients were atrophy of the optic nerve and purulent ophthalmia. These two diseases were considered at length. Special attention ought also to be given to hygiene of the sight in schools.

Dr. ALBERTO G. NORIEGA, of Mexico, read a paper on Miasmatic fevers in the State of Sonora. The author spoke of the origin, treatment and some of the peculiarities of the symptomatic characteristics of fevers from miasmatic origin in this state. He proposed the following prophylactic measures : (1) The planting of thick woods around the township, with the idea of suppressing the paludic miasma where the trees grow. (2) The houses ought to be built on the highest places, in order to keep them as far as possible out of the reach of the gases from the pools and marshes. (3) The front of the houses must not face the direction of the dominant wind, and the houses themselves ought not to be in the way of the wind coming from the pools. (4) To avoid the watering of the floors, in order to maintain the interior of the houses as dry as possible. (5) The workmen in the fields must not commence their work until the sun is way up and they must retire from the field before the sun sets.

Summary of sanitary legislation in the State of Mexico. This paper was read by Dr. M. ALVAREZ, of Mexico. The author said that the philosophy of sanitary legislation rested on three bases: (1) Those which attempt to endow the individual with good health. (2) Those which take precautions against diseases of all kinds. (3) Those which require the partial sacrifice of individual liberty in favor of the general community. The author then entered exhaustively into drinking waters, vaccination and vaccination laws, paying particular attention to the obligatory vaccination law of Mexico.

AFTERNOON SESSION.

Dr. A. WALTER SUITER, of Herkimer, N. Y., read a paper entitled *Obiter dicta*, concerning sanitary organisation. He said a system of health administration without effective organisation was like a ship without a rudder, subject to the mercy of every pestilential storm. Dr. Sniter made a strong plea for an arrangement so systematised that sanitary direction may be administered in the most practical and advantageous manner without conflict of authority. The public should be educated to a point of proper appreciation of the importance of the service required.

Dr. U. O. B. WINGATE, of Milwaukee, Wis., read a paper entitled *Some thoughts relative to sanitary legislation*. The author believes that laws pertaining to sanitation should differ very materially from other laws, inasmuch as they voice a scientific fact, and if applicable in one locality they should be also applicable in all localities. Attention was directed to the great need of a system of statistics, not only pertaining to births and deaths, but to sickness or the prevalence, especially of contagious and preventable diseases. A strong plea was made for a department of public health at Washington.

In a paper entitled *The sanitary administration of unincorporated districts*, Dr. HENRY MITCHELL, of Trenton, N. J., presented the following propositions: (1) By law provide that in each township or other local political division outside of municipalities, the sanitary authority should be exercised by one official. (2) The local health officers should be selected under civil service rules and their term of office should be five years. (3) The examination of applicants for the office of township health officer should be conducted by the state board of health. (4) The appointment of the health officer in each township should be made by the governing

body of the district from an eligible list to be furnished by the state board of health. (5) No health officer should be removed except for cause, and vacancies should be filled for the unexpired term in the manner provided for original appointments. (6) Local health officers should be required to conduct all of their official operations in accordance with rules and regulations approved by the state board of health, and they should also make weekly reports of their doings to said board and annually to the local governing body. (7) The local health officer should be paid for his services by the local governing body. (8) All suits for the violation of any local sanitary rule, regulation or ordinance, should be brought at the instance of the local health officers, and they should be prosecuted by the district attorney or prosecutor for the county, but no such suit should be begun until the necessity for its being instituted has first been agreed to by the state board of health.

Report of the international committee on the prevention of the spread of yellow fever, by the chairman, Dr. FELIX FORMENTO, of New Orleans: Regarding this disease, the recommendations of the committee we give herewith: (1) Extreme measures of local sanitation in yellow fever foci; modification of the soil, improvement of harbors, and the like, by all means known to sanitary engineering. (2) Putting in perfect sanitary condition all home seaports and towns most exposed to infection. (3) A rigid and efficient system of quarantine against the introduction of the disease. (4) Abolishing forever the abominable system of interment and disinterment practised in Spanish-American countries. (5) Wherever practicable, yellow fever hospitals should be established beyond or above yellow fever foci; when this cannot be done, these hospitals should be established at a distance from centers of population in a desirable locality and perfectly isolated. (6) Compulsory cremation of all bodies of persons who have died of that disease and incineration of all infected material.

The study of yellow fever from a medico-geographical point of view, by the president, Dr. LICÉAGA: This was the fourth paper he had presented on this subject, and his object was to enable the association to realise the true situation of the Mexican republic as regards yellow fever. With the aid of facts he dissipated the erroneous idea which for so many years had existed, that it was a country in which this disease was always found throughout the entire extent of its territory.

Dr. G. MENDIZABAL, of Orizaba, Mexico, followed with a paper entitled *A contribution to the study of yellow fever in relation to epidemics in Cordova*. The author presented a resumé of the number, intensity, duration and mortality of each of the epidemics of yellow fever which had desolated, during three centuries, the above-mentioned city. This city, besides its climate and soil, its constant humidity, its proximity to Vera Cruz, and many other causes which favor the propagation of the modifc germs, has a great scarcity of potable water of the requisite purity. It is the duty of the municipal authorities to improve the hygienic conditions of the people of this city, to provide them with potable water, to make the soil sterile to the germs of the disease, and thus forever close the doors against this desolating plague.

Dr. JOHN L. LEAL, of Paterson, N. J., read a paper on *Isolation hospitals*, in which he spoke of their utility in the restriction of preventable diseases, and illustrates his remarks by views and plans of the Paterson Isolation Hospital.

THIRD DAY—MORNING SESSION.

Major CHARLES SMART, Surgeon of the U. S. A., Washington, D. C., chairman, read the report of the committee on the pollution of water supplies, in which he referred to the bacteriological convention held in New York City, and the work accomplished by it, and says that when the standard methods of this convention are in the hands of the bacteriologists of this country, the committee will then be in a condition to define its lines of action for effecting an organisation for coöperative work, as suggested at Montreal.

Dr. PETER H. BRYCE, of Toronto, chairman, presented the report of the committee on river conservancy boards of supervision. The committee was not as yet prepared with such data regarding individual cases of pollution to present practical suggestions with reference to such a board for any particular stream, but desired, by laboring in conjunction with the committee on pollution of streams and various engineering associations, to collect material which might give to the committee's report, in another year, some practical value.

Dr. CHARLES N. HEWITT, of Red Wing, Minn., as chairman, presented the report of the committee on protective inoculations in infectious diseases.

The serum diagnosis test for typhoid fever, by Dr. W. JOHNSTON, of Montreal: The author demonstrated a modification of Vidal's method of serum diagnosis in this disease. He considers the test very reliable from a diagnostic point of view and thinks it will prove of considerable value for public health work, and that it will have a tendency for physicians to more frequently and promptly report their cases.

Prophylaxis of typhoid fever was the title of a paper by Dr. JOHN E. WOODBRIDGE, of Cleveland, O. Typhoid fever was characterised as a water-borne disease, and every attack was considered the child of a previous one and was *prima facie* evidence that the victim had eaten or drank unsterilised human excrement or some of the products thereof. The Government of the United States will not have discharged its whole duty to the people, will not have attained the zenith of its greatness, until through a Department of Health, aided by wise legislation, it has taken every possible precaution to protect the health and foster the highest physical development of her citizens, by guarding well the purity of the air they breathe, the food they eat and the water they drink.

Dr. F. C. ROBINSON, of Brunswick, Maine, read a paper in which he spoke of the practical use of formic aldehyde as a disinfectant.

Dr. E. A. DE SCHWEINITZ, of Washington, D. C., demonstrated and exhibited a convenient lamp for generating formaldehyde gas; while Dr. J. J. KINYOUN, of Washington, D. C., followed with a preliminary note on the use of formaldehyde for room and car disinfection. His results so far obtained from its use were very gratifying. Dr. Kinyoun also exhibited and described an apparatus of his own design for generating this gas.

Two papers were then read, one on The prophylaxis of paludism by Dr. A. R. ERDOZAIN, of Mexico, and the other on Paludism in the State of Morelos and its prophylaxis by sanitary measures, by Dr. A. GAVINO, of Mexico.

Dr. JUAN MULDSO, of Mexico, read a paper on Public health in Tabasco. He presented the following conclusions: (1) The sanitary condition of Tabasco in general is good. (2) Paludism is the principal disease, but it is satisfactorily treated. (3) Yellow fever is not endemic; it occurs in isolated cases, being generally imported and not finding a good soil for its propagation. (4) Isolation and other hygienic measures have successfully prevented

propagation of the disease. (5) Natives are not as easily attacked by yellow fever as foreigners are, and this immunity reaches people accustomed to the climate who have lived there for many years. (6) The climatological conditions notably modify the clinical history of certain diseases, among which forcibly calling our attention is the benign course of septicemia.

AFTERNOON SESSION.

Dr. J. J. KINYOUN, of Washington, D. C., chairman, presented the report of the committee on the cause and prevention of diphtheria. The committee recommends the following:

1. That there should be uniform rules and regulations adopted by all the states and provinces for the prevention and control of diphtheria. The several governments should assume the responsibility and act in unison in preventing the spread of the disease from one country to another and assume authority over inter-provincial and inter-state communication.

2. That it should be the duty of the health authorities to provide facilities for determining the diagnosis in all suspected cases by the establishment of inexpensive laboratories for each health jurisdiction. To agree upon a system and means of transmission of material for diagnosis through the mails.

3. Compulsory notification of all suspected cases and the abolition of the terms croup and membranous croup, unless diphtheria has been excluded by culture and microscopic examination.

4. Compulsory isolation of all cases, domiciliary or in hospital, until the recovered cases show the absence of the diphtheria bacillus.

5. That the medical inspection of schools should be inaugurated under the direction and supervision of the health authorities, by making daily inspections in the larger cities of all school children for the detection of infectious diseases. (The plan advocated by Dr. S. H. Durgin, of Boston, at the last meeting of the association was highly commended.)

6. School buildings, books, and the like, should be subjected to a reliable method of disinfection at least once per month, and oftener if suspected of being infected.

7. The early treatment of those ill with diphtheria with antitoxin, the administration of preventive doses to those who have been exposed to infection and have the bacilli in their throats.

8. Prompt and effective methods of disinfection of infected articles and apartments, to be carried out under the supervision of the health authorities.

Dr. MARQUEZ, of Mexico, contributed a paper on Diphtheria in Chihuahua. He said that diphtheria was one of the infecto-contagious diseases which was most observed in Chihuahua, and in such a degree that it sometimes caused a panic among families. The author lays down twenty-four rules to be carried out to prevent or avoid the spread of the disease.

Bacteriological diagnosis as governing the admission and discharge of patients in diphtheria hospitals, by Dr. E. B. SHUTTLEWORTH, of Toronto. The isolation hospital at Toronto was established in 1891, and up to June 30th last there were admitted 1,690 patients, said to be suffering from the disease. Diagnosis by bacteriological methods was begun in February, 1895, and since July of that year the discharge of patients had also been governed by this means of investigation. The statistics for this period covered 565 cases, and when compared with those for the preceding time afforded an opportunity for ascertaining the practical value of bacteriology when applied to the purposes indicated.

Dr. CHARLES N. HEWITT, of Minnesota, presented the report of the committee on causes and prevention of infant mortality.

Dr. S. GARCADIAGO, of Mexico, followed with a contribution on The mortality of children, its causes and means of diminishing it. The speaker classified the causes of mortality of children under three heads—crime, carelessness and ignorance. The author believes that the mortality among children can be diminished by the institution of lying-in hospitals or obstetrical departments, by which means it has been proved that infanticide nearly disappears. By establishing orphanages and homes for foundlings under the care of the government, and also under the protection of the public beneficiary, and under the care of religious people and especially the parishes. In each of these asylums a limited number of children should be allowed in order to be properly cared for and attended to. For the feeding of infants in these institutions the mother's milk should be replaced by that of the goat or other nearly as proper as the former, using the utmost care in the cleaning of bottles. Mothers who abandon their children should be severely punished.

EVENING SESSION.

Dr. FELIX FORMENTO, of New Orleans, presented the report of the committee on the use of alcoholic drinks, which was substantially that presented last year at the Denver meeting.

Dr. ALBERT L. GIBON, of New York, read a paper on The bicycle in its sanitary aspect. The author criticised the posture and saddles used by riders of the bicycle. After presenting arguments for and against the bicycle, he ventured the prediction that a light three or four wheeled vehicle, impelled by some easily managed motor, inexpensive enough to be generally available, would be the means of progression for pleasure purposes in the future, covering long distances without fatigue, permitting sight-seeing and outdoor exposure without labor, and adding the charm of companionship and participated enjoyment, while the rational instrument of exercise for exercise's sake alone would ever be a pair of sturdy human legs.

Dr. H. L. CHASE, of Brookline, Mass., read a paper on Public bathing establishments. and gave a description of the new public bath in Brookline; while Dr. W. H. TOLMAN, of New York, gave an illustrated lecture on Public baths.

Dr. CARLOS SANTA-MARIA, of Durango, Mexico, read a paper on The part that public instruction should play in the way of precaution against contagious diseases. It was a plea for the general teaching of the elements of hygiene in the public schools.

FOURTH DAY—MORNING SESSION.

At this session the following papers were read :

Report of committee on relation of forestry to public health, by Prof. R. C. KEDZIE, Lansing, Mich.

Report of committee on transportation of diseased tissues by mail, by Dr. HENRY MITCHELL, of Trenton, N. J.

On statistics of vaccination and mortality from small-pox in the City of Mexico, 1887-1895, by Dr. JOSE RAMIREZ, of Mexico.

Dr. A. N. BELL, of Brooklyn, N. Y., read a paper on Drunkenness, which he considered as a vice, and said that it should be so treated.

Dr. WM. C. KRAUSS, of Buffalo, N. Y., read a paper on The relation of noises to public health, published on page 184 of the JOURNAL.

Dr. F. C. VALENTINE, of New York City, read a paper on The protection of the innocent from gonorrhea. He said that if justification were needed for the discussion of this matter it could be found in the statistics of the German Empire for 1894. These show that of the women who died of uterine or ovarian diseases, 80 per cent. were killed by gonorrhea. They further show that of children hopelessly blind, 80 per cent. went into a life of darkness from gonorrhea. Gonorrheal patients should be educated in incontrovertible facts, the physician ever choosing terms within the range of their intelligence.

Several other papers on the program were read, some of them by title.

The following officers were elected for the ensuing year: President, Dr. H. B. Horlbeck, of Charleston, S. C.; first vice-president, Dr. Peter H. Bryce, of Toronto; second vice-president, Dr. Ernest Wende, of Buffalo; treasurer, Dr. Henry D. Holton, of Brattleboro, Vt.; secretary, Dr. Irving A. Watson, of Concord, N. H.

Place of meeting, 1897, Philadelphia.

Progress in Medical Science.

GENITO-URINARY AND SYPHILITIC DISEASES.

CONDUCTED BY BYRON H. DAGGETT, M. D., Buffalo, N. Y.

SOME POINTS IN THE TECHNIQUE OF LITHOLAPAXY.

CHESMORE (*Pacific Medical Journal* for July, 1896,) divides cases of litholapaxy into two classes: first, those in which the prostate gland is normal in size; second, those in which it is enlarged. In the first class the operator may confidently rely on clearing the bladder in one sitting; in the second class several crushings may be required. In cases where the prostate and urethra are normal, preliminary treatment is not necessary.

A stone having been discovered, located and its size determined, if there be no contra-indication, proceed at once to operate. Having placed the patient in the lithotomic posture, a catheter is passed and the bladder emptied. The catheter is withdrawn until the eye is just within the external end of the prostatic urethra. Then inject an ounce or an ounce and a half of a 4 per cent. solution of cocaine. Inject slowly, so that the solution laves and

anesthetises the deep urethra as it passes onward into the bladder. The lithotrite should be very gently and slowly passed, without force.

Give a little time for relaxation if there be spasm of the constrictor muscle, and then tilt the beak of the instrument slightly upward, when it will slip into the bladder without the slightest pressure. If the stone be soft it is easily crushed by means of the hands alone; if it be hard, the rack and pinion is brought into play. Bear in mind, the broken fragments usually gravitate to the locality originally occupied by the stone.

The operator should remember, if the beak of the lithotrite is reversed, that the line of the reflexion of the recto-vesicle fold of the peritoneum fixes in a measure that portion of the bladder to which it is attached, and he should be guarded lest he grasps a fold of the bladder in the jaws of his instrument. A knowledge of the anatomy and the *tactus eruditus* will serve to prevent injury. If the stone be small the operation may be completed without removing the instrument; but if it is large, it is better and saves time to remove the lithotrite from time to time and aspirate through a tube as large as the urethra will admit. If the lithotrite becomes clogged, it may be cleared by quick, light strokes of the jaws.

Dr. Chismore states that unless the stone be very hard he always uses his own instrument, but if it be very hard a preliminary crushing is done with an instrument devised by the late Dr. Forbes, of Philadelphia, as this instrument is much stronger, and completes the operation with his own instrument, washing out the débris while the crushing is going on. When the bladder is empty the patient is sent home and directed to stay in bed till the soreness is gone.

Such an operation takes but a few minutes, can be safely done in the office, is almost devoid of danger and nearly painless; but one assistant is needed and, if necessary, the operation may be done without an assistant. A second operation is rarely required, as the few grains of sand left are passed in urination.

The second class of cases present a very different aspect of affairs. "Catheter life" has usually begun and the urethra must be frequently invaded by an instrument following the operation; therefore it is very necessary to avoid injuring the canal or greatly irritating it.

The topography of the interior of the bladder is decidedly changed and often forms pockets, which are quite out of reach of

any lithotrite. In such a case the calculus, or its fragments, may be made to meet the instrument by means of a stream of water from the aspirator, passing out and in through the lithotrite, at the same time working the jaws to learn if the calculus has been brought within the grasp of the instrument. In cases of hypertrophy of the prostate the patient should be told that several crushings will probably be required to clear the bladder.

If after the preparation of the patient the stone cannot be caught, the jaws of the lithotrite are opened as widely as the bladder will admit, and aspiration is quickly and smartly compressed several times in succession, when the stone will frequently be found on gently closing the jaws. This procedure may be repeated as long as it is thought advisable.

If spasm, excessive pain, exhaustion or other untoward symptoms occur, the operation should be abandoned for the time being. In difficult cases, where the stone cannot be located by the Thompson searcher, it is useless to attempt to search with the lithotrite, and the procedure should be temporarily abandoned and another attempt made within a few days, when the stone may be readily found. It is better to stop too soon than to risk setting up inflammation by too prolonged manipulation. The number of sittings will vary with the varying difficulties presented in different cases as well as the skill and experience of the operator.

During the intervals Dr. Chismore avoids washing out the bladder, as he alleges that it is useless and dangerous; if the urine becomes foul, irrigation will make it worse. Relief of these conditions will be obtained by removing the fragment which causes them. Dr. Chismore presents a new instrument for removing fragments in litholapaxy, for which the following claims are made: 1. A larger caliber of the catheter, circular in form, in the male bladder admitting a freer passage of fragments. 2. Merit as a searcher in cases of stones that evade the usual method of exploration. 3. Simplicity of construction and readiness with which it can be taken apart for cleaning. 4. Enabling the operator to proceed, after the first crushing and aspiration, uninterruptedly with the operation, diminishing the necessity of the repeated introduction and removal of different instruments, thus lessening the danger of injury to the deep urethra and shortening the time required. 5. Enabling the operator to avoid working with the beak reversed, thus avoiding the most dangerous region, the fundus of the bladder, the only part where it can be easily grasped by the

lithotrite. Dr. Chismore reports fifty-eight cases of litholapaxy made by means of his instrument, which he says strengthens his claims for the same. He uses the instrument of Dr. Forbes for crushing the hard stones, and says that with these two instruments skilfully handled he fully believes it is possible to remove any stone that could be gotten by perineal section.

Dr. Chismore's instrument is manufactured by George Tieman & Co., 107 Park row, New York City, and it is illustrated in A system of genito-urinary diseases, syphilology and dermatology, by Prince A. Morrow, M. D.

Dr. Chismore recommends smearing the male blade of the lithotrite with Packer's tar soap. The wash bottle should be boiled in a strong solution of boric acid before and after each operation, which cleanses it thoroughly and preserves the rubber. During the operation two aspirators are very convenient: while one is being emptied the other is always ready for use.

He uses cocain in all operations for stones in which an anesthetic is needed. On a very few occasions there has been slight toxis, but never enough to cause suspension of the operation. Eight ounces of a four per cent. solution have been used in the course of three hours. Out of seventy-eight cases there have been but two deaths, neither one due to the operation. Dr. Chismore states that he had often been astonished at the very slight amount of distress resulting from even prolonged manipulations.

DILATATION OF THE PREPUCE.

W. S. STEWART, in the Medical Council of Philadelphia, proposes dilatation of the prepuce as a substitute for circumcision. Dr. Stewart has devised a preputial dilator which consists of four beveled blades attached to a curved forceps handle.

The blades are inserted into the preputial orifice, with care not to enter the urethral meatus; then by gradual pressure upon the handle the foreskin is stretched until it may be readily retracted over the glans. If there be adhesions to the glans, the mucous membrane should be dissected off with a blunt probe. The probe can usually be passed under the membrane to the sulcus behind the corona, which will aid the process.

The abstractor has found cases where the adhesions were so firm that a bistoury was also required to detach the membrane from the glans. The prepuce should be retracted every day and some

bland unguent applied until the foreskin is relaxed and contracted. If a redundancy of tissue remain, it can be easily removed afterward. Circumcision is dreaded for the reason that it is a cutting procedure.

Dr. Stewart alleges that this method of dilatation has proved very satisfactory, doing away with the knife, drawing no blood, and there is no mutilation of the organ ; also, that if the operation be carefully and thoroughly done there will be no need of any other remedy.

Selections.

THE RELIEF OF INTRACRANIAL PRESSURE IN GENERAL PARALYSIS OF THE INSANE, TABES DORSALIS AND OTHER DISEASES BY LUMBAR PUNCTURE.¹

[Abstract.]

By WARREN L. BABCOCK, M. D.,

Second assistant physician, St. Lawrence State Hospital.

THE surgical treatment of general paralysis has heretofore been confined to two operations, trephining and laminectomy. The past few months has witnessed the introduction of a third method looking toward the alleviation of the only indication for surgical interference, *i. e.*, increased intracranial pressure.

Trephining, for the relief of brain pressure caused by fluid, was first suggested by T. Claye Shaw in 1889 and the first operation performed in July, of that year, by Harrison Cripps. The procedure found an earnest advocate in J. Batty Tuke, who latterly suggested laminectomy with permanent drainage in its stead.

The first attempt to treat paresis surgically was by Charles G. Wagner, at Utica. He trephined a negro paretic in March, 1890, and, though the case died six months after operating, much temporary benefit was manifest by an amelioration of the prominent mental symptoms.

Surgical treatment, by any method whatever, looks toward the relief of pressure symptoms. These are caused by the great amount of fluid exuded into the lymph channels of the brain and

¹ State Hospital Bulletin, July, 1896.

meninges as a result of the cortical and meningeal inflammation in the first stage of the process, supplemented later by the compensatory exudation which follows atrophy and sclerosis. The nature of the fluid is a mooted question. Macpherson and Wallace assume that it is at first an inflammatory exudate; that it occurs early and is primary to the sclerosis of nerve elements which follow. Bevan Lewis, who holds that the arterial changes are first to occur, claims that the excess of fluid is compensatory throughout the disease and follows the cortical nerve cell atrophy.

A resumé of the operative work, having as its object the removal of this fluid in excess, demonstrates in most cases some temporary improvement in the mental symptoms, such as headache, irritability, stupor, confusion of ideas, and in some instances has afforded relief from persistent hallucinations and troublesome delusions. Tuke reports two recoveries in the first stage in cases which have since had the diagnosis called into question. In a report of recent cases trephined at Sterling, Macpherson states that the course of the disease is evidently checked for many months by the surgical relief of pressure, and suggests "that if we could only manage to diagnosticate general paralysis at a sufficiently early stage, we might then by operative interference check its aggressive march."

The transient improvement afforded by operation apparently depends on (1) relief of pressure by removal of fluid; (2) greater opportunity for brain expansion and pulsation by removal of bone; (3) subsidence of meningeal inflammation by local depletion of blood-vessels, and (4) shock to nervous system as a direct result of operation.

Locomotor Ataxia.—How does the relief of this pressure alleviate ataxia? The following modes are at once suggested:

1. By simple mechanical relief of pressure to which the coördinating centers are subjected.
2. By improvement in the circulation of the motor centers of the cord, medulla and cortex.
3. The withdrawal of fluid and the consequent improvement in the circulation of the cortical arterioles, reestablish, temporarily, the inhibitory functions of the higher centers.

The ataxia of the following case of tabes dorsalis was greatly benefited by puncture:

No. 2275.—Admitted October 3, 1895. Male; aged 68 years. Sub-acute mania with locomotor ataxia. Duration unknown. Ataxia well

marked on admission and slowly progressed to almost complete paraplegia. When punctured, patient had been in bed for four months. Operation May 26, 1896; 95 c.c. clear cerebro-spinal fluid removed in sixty minutes. During operation he became irritable and disturbed, perspired freely, complained of headache, and respiration and pulse increased in frequency. Following day was confused, delusional and irritable. One week later patellar reflexes were apparent and he began to use his legs with the assistance of a chair. In a few days he walked without support to the dining-room and has continued to get about with but little difficulty since. Facial expression, formerly dull and blank, has become fairly intelligent in its expression. General physical health has improved; he has gained in weight and grown considerably stronger. When the advancement toward a moderate degree of health in a case as far advanced in tabes as the above is so apparent, it is evident that the method is worthy of a more extended trial.

Diagnostic and Therapeutic Possibilities of Lumbar Puncture.

—Experimental puncture is a justifiable procedure in doubtful cases of meningitis, even though symptoms of pressure are absent. Precipitation of sediment in fluid and staining may demonstrate the presence of germs in the exudate. Albert Frankel reports a case in which the diagnosis of tubercular meningitis was made from an examination of the fluid thus obtained. Furbinger reports similar cases. Stadelman found the diplococcus of croupous pneumonia in the exudate of one case. More recently, Caille, in discussing tubercular meningitis, suggests laying bare the dura by trephine and irrigating the sub-arachnoid space from the seat of puncture upward, the fluid escaping through opening in dura. This would also be applicable to any meningeal inflammation, including infectious cerebro-spinal meningitis and the acute meningitis of acute delirium. The utility of this form of spinal lavage in general paralysis is doubtful. No indications suggest its possible efficacy in this disease. The writer, however, has the subject under investigation and hopes to find material for a further report.

The clinical symptoms of paresis that indicate the operation are those apparently caused by the increased intracranial pressure. The principal symptomatic indication is the frequently recurring periods of the second and third stages of deep stupor, which is almost entirely due to a sudden or compensatory increase in the amount of cerebro-spinal fluid, and partially masks or veils the underlying dementia. Upon its removal the true condition of the patient is often made apparent. Headache, vomiting, vertigo, convulsion, suffused face and high arterial tension are symptoms that

suggest increased cerebral tension, and in the experience at least of the writer was relieved, temporarily at least, by puncture.

The author then narrates the histories of 12 cases of general paralysis, 1 case of locomotor ataxia, 1 of stuporous melancholia, 2 of simple melancholia with pressure symptoms, 1 of organic dementia, 1 of status epilepticus and 1 of acute delirium which were certainly relieved by this operation.

Character of the Fluid Obtained by Puncture.—The specific gravity of the cerebro-spinal fluid in general paralysis is generally lower than normal. In one case in the third stage it was found to be 1003. From this low figure it ranged up to 1010, one case only reaching that figure, which is considered to be the normal. The average for the twelve cases was less than 1007. The specific gravity of the fluid from cases other than paresis closely approximated the normal as will be seen by a reference to the table.

The reaction of the fluid was neutral in over 90 per cent. of the paretics and in three-fourths of the remaining cases. The normal reaction of the fluid is neutral or faintly alkaline. In no case did it show great alkalinity or even faint acidity. Bevan Lewis states that he has found it to be acid in reaction in paretics dying in third stage. He is evidently in error and the acidity he noticed was probably a post mortem change.

A careful study of results brings out the following conclusions:

1. Lumbar puncture affords temporary relief from pressure symptoms in over 50 per cent. of cases of paresis submitted to the operation.

2. The most beneficial effects are manifest over motor inco-ordination, *i. e.*, ataxia, tremors, etc.

3. Analysis of the fluid obtained in paresis shows that it contains an inflammatory product (albumin) throughout all stages.

4. It may be of benefit in locomotor ataxia, status epilepticus or organic cerebral disease and deserves further trial in these cases.

5. It presents excellent diagnostic possibilities, particularly in meningeal inflammations.

6. It does not sufficiently benefit melancholia with pressure symptoms to warrant its use in this disease, and lastly

7. Re-accumulation usually occurs within from three to ten weeks, when a second or even a third puncture is indicated if patient's condition admits.

ULCER OF THE STOMACH TREATED WITH PROTONUCLEIN.

By H. N. KIRBY, M. D., Concord, Mass.

MY EXPERIENCE with protonuclein has been limited, but in all cases in which I have used it I have been quite successful, especially so in the one which is reported below :

Mr. J., aged 24, farmer by occupation, became one of my patients some two years ago, when he presented the following symptoms : For a long time he had been troubled with inability to retain food. There would be severe pain in the stomach, which would be increased by the presence of food and by pressure over region of stomach. This pain would be relieved by vomiting ; sometimes there would be vomiting of blood ; bowels constipated, tongue covered with thick coating. I tried several remedies at that time, such as pepsin, bismuth, nitrate of silver, aromatic powder, Carlsbad salts, mustard over epigastrium, and the like, together with a strict diet. This course of treatment was followed by temporary improvement, but no real improvement. He finally left me, utterly discouraged, and came under the care of other physicians, but with apparently no better success. About two months ago he returned to me, very much reduced in flesh, his weight having dropped from 160, his normal weight at the beginning of the trouble, to 124 pounds, and every symptom increased in its severity, and so weak and exhausted was he that he was unable to follow his usual occupation.

I straightway put him upon a strict diet again, and gave him protonuclein, grs. iii., every four hours, to be taken religiously. From the beginning of the administration of protonuclein he began to improve and gradually to retain food. The pain began to diminish and he gained fully ten pounds in weight within the first two weeks. His appetite and strength returned, and in fact there was rapid and permanent improvement. At the present time of writing he has ceased taking protonuclein, and when I last saw him he was apparently well.—*Atlanta Medical Weekly*.

ON DIPHTHERITIC PARALYSIS.

THE following is an analysis of the cases occurring at the Eastern Hospital, Homeoton, during the years 1892 and 1893, by E. W. Goodall, M. D., London, medical superintendent of the hospital (*Brain*, summer and autumn, 1895) :

The patients came almost entirely from the lower classes of society. The cases, both of diphtheria and of paralysis, were consecutive. The patients were detained in the hospital six weeks and nearly all of them, especially the cases of paralysis, have again come under the writer's personal observation.

During 1892 and 1893, 1,071 cases of primary diphtheria have been under treatment in the hospital; 362 died. Of the 709 surviving patients, 125 became paralysed, or 17.6 per cent., 17 of which proved fatal. The ages of the patients ranged from one to forty-two years; none were under one year of age. Most of them were under ten years of age.

The writer compares his figures with those quoted by Gowers, who states that "adults furnish a larger proportion of paralysis after diphtheria." In the patients under the writer's care the largest percentage of paralysis, 22 per cent., was furnished by children under ten years of age.

The seventh is the earliest day upon which symptoms of paralysis have been observed and the forty-ninth is the latest. Usually the membrane or exudation clears off completely before the paralytic symptoms set in, but not always.

In a large proportion of cases, 66.4 per cent., the palate alone was the first part to be affected, while either alone or in combination with some other muscles it was the first part to suffer in 74.7 per cent. of all cases.

In 66 of the 125 cases, that is in 52.8 per cent., the paralysis was limited in extent. In 16 cases it was generalised. In none of the cases was facial paralysis, paralysis of the tongue or of the sphincters of the bladder or rectum observed.

The writer thinks that sensory disturbances are more common than is supposed. Those most frequently met with are the sensations described as "pins and needles" in the fingers and toes, with numbness in the same parts.

The duration of paralysis varied between one and fifteen weeks; in none of the cases was any permanent paralysis left behind.

The writer does not agree with Henoch or Gowers, who say that paralysis occurs most frequently after milder attacks; his experience shows that the more severe the attack the greater the likelihood to subsequent paralysis, as is also shown by the figures of Cadet de Gassicourt in his *Traite Clinique des Maladies de l'Enfance*. The latter also states that it is rare for the paralysis to be limited to any part other than the palate and pharynx. The experience of the writer has not been the same in this respect.

The large majority of limited paralysis terminate in recovery. Severe cases of general paralysis are usually fatal. The writer cites two severe cases of general paralysis, both of which recovered.

Henoch, De Gassicourt, Goodhart and others describe more than one class of cases of cardiac paralysis. The writer, however, thinks that the pathology of cardiac paralysis may be different in different cases of diphtheria. He divides his cases into three classes: (1) Cases which die from heart failure during a time when exudation is still present upon the fauces and without there being any symptoms of paralysis. (2) Cases in which the patient having already become paralysed is seized with symptoms of cardiac failure. (3) Cases in which the patient, being convalescent and having been free from membrane for some time is seized with heart failure. The cause of death in the first group of cases is rather to be sought in the immediate action of toxins on some part of the nervous mechanism, than in actual changes of a degenerative nature in the nerves or muscles. In the second group of cases, heart failure may be due to disordered innervation of the fatty changes which take place in the cardiac muscle during fevers. In the third group of cases death may be due to a degeneration of the cardiac muscle or to a degeneration of the vagus or its branches.

The symptoms usually associated with an affection of the vagus are: (1) Alteration in the action of the heart; (2) paresis or paralysis of the intrinsic muscles of the larynx and alteration in the rhythm of respiration; and (3) vomiting. The writer gives the history of a case, in which on the sixteenth day of the disease, ten days after the local exudation had disappeared, all the above-named symptoms appeared, the child dying five days afterward. Such cases, however, according to the writer's opinion, are very uncommon.—*Journal of Nervous and Mental Disease*, July, 1896.

NITROGLYCERIN FOR GALL-STONE.—I was called to a married woman aged forty-eight, and made a provisional diagnosis of gall-stone colic, subsequently confirmed by Dr. Lauder Brunton. I ordered her one-hundredth grain nitroglycerin, which gave relief in a few minutes; and she has never had an attack since which has not been relieved by this remedy. The use of the drug was suggested by its known paralysing action on unstriated muscular tissue. Presumably it relaxes the spasms of the gall-bladder and ducts. Perhaps some of the cases of gastralgia that are relieved thereby are really cases of biliary colic.—Dr. Turnbull, in *The Lancet*.

BUFFALO MEDICAL JOURNAL.

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EDITORS:

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

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No. 3.

AMERICAN PUBLIC HEALTH ASSOCIATION.

ACCORDING to the announcements in previous issues of the JOURNAL, this important organisation held its twenty-fourth annual meeting in Buffalo, September 15-18, 1896. The history and purposes of the association were given in our September issue, but it remains for us to speak at this time especially of the recent meeting.

In the first place, the season for the gathering was well chosen. Buffalo is at its best in summer and early autumn, and the weather could scarcely have been better than during the week of the meeting. Again, the place in which it was held was a fortunate selection. Ellicott square furnishes more conveniences for such a meeting than can be found under one roof in Buffalo, or, for that matter, we believe, in any other city within the jurisdiction of the association. Furthermore, the arrangements were completed with an unusual degree of perfection, thanks to the leadership of Dr. Ernest Wende, chairman of the local committee. The frequent meetings of the executive committee during the summer months led to concerted action on the part of the several sub-committees, so that each had its work well in hand.

In justice to truth it must be said, however, that one or two criticisms at this point are pertinent. First, and perhaps foremost, stands out the fact that the acoustic properties of the hall in which the scientific work of the association was done were the very worst. This was accentuated all the more by the noise from street traffic, which latter made it necessary to close the windows on the South Division street side. Hence, the members were compelled to choose between a stifling atmosphere or an exasperating noise



Ernest Wendt

HEALTH COMMISSIONER OF BUFFALO, CHAIRMAN EXECUTIVE COMMITTEE
AMERICAN PUBLIC HEALTH ASSOCIATION, BUFFALO
MEETING, SEPTEMBER 15-18, 1896.



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| 1. John B. Coakley, M. D. | 6. Eugene A. Smith, M. D. |
| 2. William C. Phelps, M. D. | 7. Henry Reed Hopkins, M. D. |
| 3. Lucien Howe, M. D. | 8. Walter D. Greene, M. D. |
| 4. William Warren Potter, M. D. | 9. Edson J. Weeks. |
| 5. Byron H. Daggett, M. D. | 10. James D. Wood. |

CHAIRMEN OF COMMITTEES, AMERICAN PUBLIC HEALTH ASSOCIATION,
BUFFALO, N. Y., SEPTEMBER 15-18, 1896.

that rendered their work less intelligible than could be desired. An attempt was made to remedy the noise nuisance by Dr. Wende, who sought to have the street laid in tanbark ; but, thanks to the courteous and learned president of the board of public works, this was vetoed. It is strange how the perverseness of one individual may cause the discomfort, not to say confusion, of a large body of scientific workers. Another criticism pertinent to offer is the fact that the entertainment committee excluded the ladies from the Ellicott club reception. We think this an error. The visiting ladies are quite as much to be provided for at such meetings as are their husbands or other relatives, and to exclude them from such a social function not only detracts from its pleasure but renders the entertainment committee open to the charge of causing an affront to guests whom all are bound to treat with the utmost hospitality.

Turning now to the meeting itself, we have nothing but praise for the number and quality of the attendance or the work done. This meeting was notable for having as its presiding officer a distinguished citizen of the Mexican Republic, Dr. Eduardo Liceaga, a man of learning and science, whose dignified bearing was everywhere observed. He and his accomplished son, together with their thirty Mexican confrères, were decided additions to the scientific and social qualities of the association, and their visit to Buffalo will long be remembered by many of its citizens whose acquaintance they made and whose friendship, we trust, will endure.

Dr. Alfred A. Woodhull, Lieutenant-Colonel U. S. Army, who was on this occasion the executive officer of the association, by virtue of his office as vice-president, proved a most capable and graceful chairman, whose parliamentary knowledge moved the work along with despatch.

Dr. Irving A. Watson, as secretary, approaches as near the ideal in the conduct of his office as is permitted in this unidyllic period. To his sagacity, courteousness and executive capacity the association owes much of its present influence and rapid growth.

Dr. Albert L. Gihon, medical director U. S. Navy, as chairman of the committee on program, and in various other ways, contributed to the success of the Buffalo meeting. Dr. Gihon is a ready debater, a graceful speaker, and his paper on The bicycle, Thursday evening, September 17th, was a model of good taste in method and material, which challenged the respect even of those who may chance to disagree with him in his teachings or doctrines.

We should be pleased to speak of many others who contributed to the success of the Buffalo meeting did space permit.

The association chose the following-named officers for the ensuing year: President, Dr. Henry B. Horlbeck, of Charleston, S. C.; first vice-president, Dr. Peter H. Bryce, of Toronto; second vice-president, Dr. Ernest Wende, of Buffalo; treasurer, Dr. Henry D. Holton, of Brattleboro, Vt.; secretary, Dr. Irving A. Watson, of Concord, N. H.

The election of Dr. Wende as one of the vice-presidents is a graceful recognition of his successful administration of the local preparations for the Buffalo meeting. Philadelphia was selected as the place in which to meet next year, the date to be fixed by the council.

The association adjourned at 2 o'clock p. m., Friday, September 18, 1896, and the members and guests joined the local committee in an excursion around the harbor. An interesting event of this function, arranged by Dr. E. C. W. O'Brien, of the local executive committee, was an exhibition of maneuvers by the life-saving crew attached to the Buffalo station. All seemed to enjoy this part of the entertainment, and the thanks of the committee are due to Dr. O'Brien for his thoughtfulness in proposing and carrying out so successfully this part of the program. Finally, the exercises were brought to a close on Saturday, September 19th, by an excursion to Niagara Falls, via Chippewa, thence by trolley to Queenstown, via the Gorge road to the Falls, and a dinner at the International hotel. The tourists returned to Buffalo via the New York Central railway. This part of the program, so far as transportation was concerned, was arranged by Mr. Edson J. Weeks, chairman committee on transportation and railroads, whose work was most ably performed. Thus ended one of the most satisfactory and successful meetings in the history of the association.

TOPICS OF THE MONTH.

THE opening of the new Riverside Hospital, 306 Lafayette avenue, on Wednesday evening, September 16, 1896, was an interesting event in the history of this well-established institution. Dr. Randall, assisted by the hospital staff, were busy receiving and all had a pleasant word for the comfortably arranged, airy, well-lighted and cozy home, which would be more proper than to call it a hospital. Twenty-five patients can be cared for at one time and on

the opening evening twelve beds were occupied. A cordial invitation is extended to all physicians to call and inspect the hospital.

ATTENTION is called on another page to the twenty-ninth annual meeting of the Medical Association of Central New York, to be held in Rochester, October 20th next. This association is next to the state societies in point of numbers, work and influence, and should be liberally attended by the Buffalo profession. The number of Buffalo members is far too small as compared with the Syracuse or Rochester membership, and it is to be hoped that a large number of applicants may attend the Rochester meeting.

THE Mexican delegates at the recent meeting of the Public Health Association attracted considerable attention both by the secular press and by local visitors to the meetings. Their prompt attendance, active participation and intense interest shown in the papers and discussions, showed them to be scientific hygienists of superior merit. The delegation consisted of the health officer of each of the several states, and it was but fitting that their superior, or permanent president of the superior board of health, of which they are all members, should also be the president of the Buffalo meeting.

EFFECTS OF THE PUBLIC HEALTH ASSOCIATION.

We have boiled the hydrant water,
We have sterilised the milk ;
We have strained the prowling microbe
Through the finest kind of silk ;
We have bought and we have borrowed
Every patent health device,
And at last the doctor tells us
That we've got to boil the ice.

—Unknown.

Personal.

At the recent meeting of the American Public Health Association, held at Buffalo, the United States was ably represented by Geo. M. Sternberg, M. D., Surgeon-General, U. S. Army ; Albert L. Gihon, M. D., Medical Director of the Navy (retired) ; Alfred A. Woodhull, M. D., Lieutenant-Colonel U. S. Army, who presided at the meetings and D. E. Salmon, D. V. M., Chief of the Bureau of Animal Industry, and others.

Among the prominent Canadian sanitarians there were present :

Dr. Fredrick Montizambert, of Quebec, General Superintendent of Quarantines of the Dominion of Canada; Dr. Peter H. Bryce, of Toronto, Secretary of the Provincial Board of Health of Ontario; and Dr. Wyatt Johnston, of Montreal, Bacteriologist of the Provincial Board of Health of Quebec.

WHILE attending the annual meeting of the Association of Erie Railway Surgeons, held at the Kent House, Lakewood, September 21, 1896, Dr. John L. Eddy, of Olean, president of the association, met with quite a severe accident, falling into an open elevator shaft, down a distance of eight feet, sustaining a deep cut across the forehead, a badly sprained ankle and a severely bruised hip.

DRS. HARRY A. POWERS and Oscar H. Kraft, of Buffalo, who have been house surgeon and ambulance surgeon, respectively, at the Fitch hospital the past year, have opened an office at 47 West Swan street. Dr. Powers, hours: 9.30-11 A. M., 1.30-3 and 7 P. M. Dr. Kraft, hours: 8-9.30 A. M., 3-4.30 and 7 P. M. Telephone, Seneca 310.

AT the one hundred and twenty-eighth annual commencement of Brown University the honorary degree of LL. D. was conferred on Dr. George M. Sternberg, of Washington, D. C., Surgeon-General of the United States Army.

DR. WILLIAM C. FRITZ, of Buffalo, who has been on the invalid list, and under the care of Dr. Charles Cary for the last four months, has returned from the country and resumed his practice at 164 East North street.

DR. CHARLES A. L. REED has been elected gynecologist and abdominal surgeon on the staff of the Cincinnati Hospital, vice Dr. T. A. Reamy resigned.—*Columbus Medical Journal*, September.

DR. WILLIAM H. HUMISTON, of Cleveland, has been elected associate professor of gynecology in the medical department of Western Reserve University.

DR. L. H. STAPLES, of Buffalo, has removed from 179 East Ferry street to 121 East Ferry street, corner Masten; office hours, 8 to 10 A. M., 1 to 3 and 7 to 8 P. M.

DR. RAY H. JOHNSON and wife have returned from a three weeks' vacation to New York and the seashore.

DR. GEORGE R. STEARNS and daughter have returned from a two weeks' trip to the seashore and New England.

DR. JOHN TOWNSEND PITKINS has returned from Georgian Bay.

College Notes.

THE dental department of the University of Buffalo opened its fifth regular session on Tuesday in the new building erected during the Summer vacation. The new building, which is directly back of the old quarters occupied by the dental department in the university building and separated from it by a court, is not entirely completed yet. The freshman quarters are habitable, however, and the furniture necessary for their work has been moved over and the regular work has begun.

The freshman class numbers between forty and fifty students, and will probably reach between seventy-five and eighty before the date of entry is closed. The junior and senior classes begin their work on October 23d.

THE annual announcement of the Buffalo College of Pharmacy has been issued. The only change of importance is the appointment of J. George Meidenbauer, a graduate of the college, as instructor in pharmacognosy. Dr. Wende will resume his class in botany, which has been under Dr. Benedict for the past few years. The establishment of what is really a three years' course in the college, which leads to the degree of Phar. M., appears to have been a success. Four men completed one year of it last year, and several of the graduates will return this fall to complete the larger course.

THE formal opening of the Medical Department of the Buffalo University began September 14, 1896, in the University building

on High street. Dr. Matthew D. Mann, the Dean of the faculty, opened proceedings with a graceful speech of welcome, and the address was delivered by Dr. Woods Hutchinson, formerly of the Iowa State University, who assumes here the chair of comparative pathology.

THE fourteenth annual session of the Medical Department of Niagara University will begin Thursday, October 1, 1896, at 9 A. M.

Society Meetings.

BUFFALO ACADEMY OF MEDICINE.—The following is the program, session of 1896-1897, of the section on obstetrics and gynecology :

September 22, 1896.—Post-partum hemorrhage: Etiology, pathology and diagnosis, Dr. P. W. Van Peyma; treatment, Dr. R. L. Banta.

October 27, 1896.—Mammary inflammations: Etiology, pathology and diagnosis, Dr. W. G. Taylor; treatment, Dr. Eugene Smith.

November 24, 1896.—Albuminuria of pregnancy: Etiology and pathology, Dr. A. A. Jones; treatment, Dr. Henry R. Hopkins.

December 22, 1896.—Uterine displacements: Etiology and pathology, Dr. M. A. Crockett; diagnosis and treatment, Dr. Stephen Y. Howell.

January 26, 1897.—Extrauterine pregnancy: Etiology, pathology and diagnosis, Dr. Marcell Hartwig; treatment, Dr. H. E. Hayd.

February 23, 1897.—Drainage following abdominal operations: Dr. Chauncey P. Smith; treatment of shock and collapse following operations, Dr. John Parmenter.

March 23, 1897.—Disorders of menstruation: Etiology and pathology, Dr. Lillian Craig Randall; diagnosis and treatment, Dr. H. D. Ingraham. The relation of atrophic rhinitis in young women to disorders of menstruation, Dr. John E. Bacon.

April 27, 1897.—Abortion: Etiology and pathology, Dr. C. S. Jewett; diagnosis and treatment, Dr. C. C. Frederick. A plea for uterine curettage as a routine measure after abortion before the third month, Dr. S. Goldberg.

May 25, 1897.—Subject to be announced, Dr. Irving Snow. Infantile dyspepsia, Dr. A. L. Benedict.

June 22, 1897.—(The section entertains the academy.) Puerperal septicemia: Etiology and pathology, Dr. L. G. Hanley; diagnosis and treatment, Dr. M. D. Mann.

Meetings commence promptly at 8.45 P. M.

DR. H. E. HAYD, *President*,
493 Delaware avenue.
DR. WALTER S. REYNOLDS, *Secretary*,
381 Hampshire street.

THE following is the complete list of officers and committees of the Medical Society of the State of New York: President, Dr. James D. Spencer, Watertown; vice-president, Dr. L. Duncan Bulkley, New York; secretary, Dr. Frederick C. Curtis, 17 Washington avenue, Albany; treasurer, Dr. Charles H. Porter, 103 Lancaster street, Albany.

Business Committee—Drs. Seneca D. Powell, chairman, 12 W. 40th street, New York; Willis G. Macdonald, 27 Eagle street, Albany; Ernest Wende, 471 Delaware avenue, Buffalo.

Committee of Arrangements—Drs. Wm. J. Nellis, 210 State street, Albany; Wm. Hailes, Albany; Reynold W. Wilcox, New York.

Committee on By-laws—Drs. H. D. Wey, Elmira; W. J. Herri-man, Rochester; F. C. Curtis, Albany.

Committee on Hygiene—Drs. Henry R. Hopkins, 433 Franklin street, Buffalo; Lewis S. Pilcher, Brooklyn; Daniel Lewis, New York; Willis G. Macdonald, Albany; O. W. Peck, Oneonta; Lucien Howe, Buffalo; A. M. Campbell, Mt. Vernon.

Committee on Legislation—Drs. A. Walter Suiter, Herkimer; M. J. Lewi, New York; J. M. Winfield, Brooklyn.

Committee on Ethics—Drs. Charles Jewett, 330 Clinton avenue, Brooklyn; Eugene Beach, Gloversville; John L. Heffron, Syracuse.

Committee on Prize Essays—Drs. Abraham Jacobi, 110 W. 34th street, New York; Henry Hun, Albany; Wm. F. Cheesman, Auburn.

Committee of Publication—Drs. F. C. Curtis, Albany; F. D. Bailey, Brooklyn; M. D. Mann, Buffalo; Chas. H. Porter, Albany.

The next annual meeting of the society will be held in Albany, N. Y., January 26–28, 1897.

THE twenty-ninth annual meeting of the Medical Association of Central New York will be held in Rochester, Tuesday, October

20, 1896. The titles of papers to be presented should be sent the secretary by October 1st to be included in the program. To insure prompt publication of all papers and discussions in the transactions of the association the manuscript should be given to the secretary at the meeting. As these papers are to appear first in the *BUFFALO MEDICAL JOURNAL*, they must not have been published in any other journal or the secretary cannot undertake to insure their appearance in the transactions. Every member paying the annual dues of one dollar is entitled to a copy of the transactions. C. A. Vanderbeek, secretary, 113 North street, Rochester, N. Y.

THE election of officers of the American Microscopical Society, held at Pittsburg, Pa., August 18-20, 1896, resulted as follows: President, Professor E. W. Claypole, Akron, O.; vice-president, C. C. Mellor, Pittsburg, Pa.; second vice-president, Dr. A. M. Bleile, Columbus, O.; secretary, Dr. Wm. C. Krauss, Buffalo, N. Y.; treasurer, Magnus Pflaum, Pittsburg, Pa.; executive committee, Dr. A. A. Young, Newark, N. Y.; Mrs. S. P. Gage, Ithaca, N. Y.; Dr. W. P. Manton, Detroit, Mich.

THE annual election of officers of the Association of Erie Railway Surgeons, held at Lakewood, N. Y., September 21, 1896, resulted as follows: President, Dr. Webb J. Kelly, Galion, O.; vice-president, Dr. F. W. Thomas, Marion, O.; secretary and treasurer, Dr. W. W. Appley, Cohocton; executive committee, Dr. C. M. Daniels, Buffalo; Dr. C. S. Parkhill, Hornellsville; Dr. L. H. Leyman, Huntington, Ind.

THE election of officers of the Mississippi Valley Medical Association, held at St. Paul, Minn., September 15-18, 1896, resulted as follows: President, Dr. T. H. Stuckey, Louisville, Ky.; first vice-president, Dr. C. A. Wheaton, St. Paul, Minn.; second vice-president, Dr. Paul Paquin, St. Louis, Mo.; and Dr. H. W. Loeb, secretary. The next meeting will be held at Louisville, Ky., in October, 1897.

THE annual meeting of the New York State Association of Railway Surgeons, under presidency of C. S. Parkhill, M. D., of Hornellsville, will be held on November 17, 1896, at the Academy of Medicine, New York City, C. B. Herrick, M. D., Troy, N. Y., Secretary.

PROGRAM of the Tri-state Medical Society, to be held at Chattanooga, Tenn., Tuesday, Wednesday and Thursday, October 13, 14 and 15, 1896 : 1. Convulsions in children, treated with large doses of morphine, Y. L. Abernathy, Hill City, Tenn.; to open the discussion, P. D. Sims, G. Manning Ellis. 2. The theory of antipyretics, P. L. Brouillette, Huntsville, Ala.; to open the discussion, W. C. Bilbro, J. W. Duncan, J. B. Cowan. 3. Cystitis; report of cases, D. S. Middleton, Rising Fawn, Ga.; to open discussion, G. A. Baxter, George S. Brown. 4. A new splint for fractures of the humerus below the surgical neck, G. A. Baxter, Chattanooga, Tenn.; to open the discussion, C. Holtzelaw, W. F. Westmoreland. 5. Humphrey's operation (amputation of the penis), with presentation of patient, C. Holtzelaw, Chattanooga, Tenn.; to open the discussion, Duncan Eve, Y. L. Abernathy. 6. Diseases of the vern montanum (caput gallinaginis), W. Frank Glenn, Nashville, Tenn.; to open the discussion, Wm. S. Goldsmith, J. A. Goggans. 7. Operations for abscesses of the liver, W. C. Towns, Chattanooga, Tenn.; to open the discussion, W. E. Davis, Richard Douglas, W. D. Haggard, Jr. 8. Acute pelvic congestion, Valentine Taliaferro, Atlanta, Ga.; to open the discussion, W. G. Bogart, George R. West. 9. A few unique cases of abdominal section, J. A. Goggans, Alexander City, Ala.; to open the discussion, R. M. Cunningham, Richard Douglas. 10. Treatment of pus in the pelvis, W. E. B. Davis, Birmingham, Ala.; to open the discussion, R. J. Trippe, J. B. S. Holmes. 11. Vaginal hysterectomy for bilateral suppurative processes of the uterine adnexa, W. D. Haggard, Jr., Nashville, Tenn.; to open the discussion, Richard Douglas, J. A. Goggans. 12. Some remarks on syphilis, W. F. Westmoreland, Atlanta, Ga.; to open the discussion, Richard Douglas, W. Frank Glenn. 13. Observations on the treatment of specific and nonspecific venereal ulcers, Wm. S. Goldsmith, Atlanta, Ga.; to open the discussion, Geo. S. Brown, W. Frank Glenn. 14. Bacteriological data in the drainage of the peritoneal cavity, Geo. S. Brown, Birmingham, Ala.; to open the discussion, R. M. Cunningham, W. F. Westmoreland. 15. A statistical report of some of the more recent remedies used in the treatment of tuberculosis and summary of recent preventative methods of value, R. H. Hayes, Union Springs, Ala.; to open the discussion, R. M. Cunningham, H. Berlin, J. C. LeGrand. 16. The Turkish bath; its therapeutic indications, Louise Eleanor Smith, Chattanooga, Tenn.; to open the discussion, E. A. Cobleigh, Katherine R. Collins. 17. Micros-

copical and chemical aids to diagnosis, Katherine R. Collins, Atlanta, Ga.; to open the discussion, Louis Eleanor Smith, W. C. Townes, G. W. Drake. 18. Some obstetrical complications, with report of cases, R. R. Kime, Atlanta, Ga.; to open the discussion, W. G. Bogart, Richard Douglas, W. D. Haggard, Jr. 19. Puerperal eclampsia, Seale Harris, Union Springs, Ala.; 20. Puerperal eclampsia, J. E. George, Rockwood, Tenn.; to open the discussion, R. R. Kime, R. M. Cunningham. 21. Medicine—hippocratic and operative, John P. Stewart, Attalla, Ala.; to open the discussion, J. B. Cowan, Y. L. Abernathy. 22. Diseases and treatment of the accessory sinuses of the nose, B. F. Travis, Chattanooga, Tenn.; to open the discussion, N. C. Steele, G. C. Savage. 23. Subject to be announced, G. C. Savage, Nashville, Tenn.; to open the discussion, B. F. Travis, J. M. Crawford. 24. Paper on diseases of the eye, Alec. Sterling, Atlanta, Ga.; to open the discussion, G. C. Savage, B. F. Travis. 25. Paper on diseases of the eye, J. M. Crawford, Atlanta, Ga.; to open the discussion, Alec. Sterling, T. Hilliard Wood. 26. Report of a case of bradycardia, W. C. Bilbro, Murfreesburg, Tenn.; to open the discussion, J. R. Rathmell, J. W. Duncan. 27. The Woodbridge treatment of typhoid fever, J. W. Duncan; to open the discussion, J. B. Murfree, Jno. P. Stewart. 28. Treatment of cancer of the skin, C. R. Achison, Nashville, Tenn.; to open the discussion, E. A. Cobleigh, M. B. Hutchins. 29. President's address—The doctor of medicine, J. B. Murfree, Murfreesboro, Tenn. Dr. Frank T. Smith, secretary, Chattanooga, Tenn.

TRANSPORTATION ARRANGEMENT FOR THE MEXICAN MEETING OF THE PAN-AMERICAN MEDICAL CONGRESS.—Dr. H. L. E. Johnson, 1400 L street, N. W., Washington, D. C., has been elected chairman of the special committee on transportation. All communications relative to rates, reservation in the regular trains, etc., should be addressed to him. A rate of one fare for the round trip has been secured between St. Louis, New Orleans, and all other trans-Mississippi points and the City of Mexico. It is confidently expected that this rate will be extended over the entire territory of the United States. Arrangements are in progress for a splendidly-equipped train of sleeping and observation cars, with first-class dining-car service. Dr. Johnson will presently be in position to announce a rate, which will include railroad fare, sleeping and dining-car service both ways, and in the City of Mexico, and

covering the expenses of various side trips to most important historic points in the Republic. Dr. Charles A. L. Reed, secretary international executive committee.

Book Reviews.

IN SICKNESS AND IN HEALTH. A Manual of Domestic Medicine and Surgery, Hygiene, Dietetics and Nursing. Dealing in a practical way with the problems relating to the maintenance of health, the prevention and treatment of disease and the most effective aid in emergencies. Edited by J. WEST ROOSEVELT, M. D., Late Physician-in-Charge of Seton Hospital for Consumptives; Visiting Physician to Bellevue Hospital, and Attending Physician to Roosevelt Hospital, New York. Complete in one volume of over 1000 pages. Illustrated with four colored plates and numerous engravings. Full analytical index. Sold only by subscription. Price, \$6.00, in cloth binding. New York: D. Appleton & Co., 72 Fifth avenue. 1896.

This book marks the first attempt to prepare a treatise on domestic medicine by scientific men at the instance of a publishing house that has acquired fame in medical literature. The others have been written by fakirs, irregular practitioners, botanical Thompsonians, red pepper or steam doctors, eclectics or general all-round advertising frauds.

The editor of this volume, Dr. J. West Roosevelt, and all his associates are physicians of science, excepting Miss Maxwell, who is a nurse of science. The first article considers the anatomy of the human body, and is written by George Waldo Cray. The next article is entitled Physiology: the vital processes in health, of which Frederic S. Lee, Ph. D., is the author.

The third article, entitled Outlines of psychology, or a study of the human mind, is by Josiah Royce, Ph. D. The next article, on physical training, is contributed by Joseph Hamblen Sears, A. B. This is followed by an article on hygiene, by Samuel Treat Armstrong, M. D. Then comes a section on surgical injuries and surgical diseases, by Alexander B. Johnston, M. D.

The seventh article, on diseases in general, is the product of a joint authorship of the editor, Dr. J. West Roosevelt, and Dr. William P. Northrup. This is followed by an article on diseases of the digestive organs, heart and lungs, by Frank W. Jackson, M. D. Next comes an article on diseases of the kidneys and urinary derangements, by J. West Roosevelt, M. D. Next in order we find an article on diseases of women and midwifery, by Samuel Waldron Lambert, M. D.

The eleventh article, entitled Nervous and mental diseases, is contributed by Frederick Peterson, M. D. This is followed by a

section on medicines and treatment, by Henry A. Griffin, M. D. The final article, entitled Nursing the sick, is contributed by Miss Anna Caroline Maxwell. The managing editor is Celeste Winans Herrick, A. B.

We have given the foregoing headings of the articles and their authors that our readers may judge of the scope of the work and the ability of the contributors. In each section there is to be found just enough of the subject dealt with to give it a flavor of science without delving so deeply into the subject as to make its reading onerous. In other words, the volume is written for the popular eye rather than for the laboratory or consulting-room. It is just such a work as may properly find itself on the library shelves of every householder without doing violence to the most fastidious sense. Indeed, the information it conveys is of a nature to make it a proper book to place in the libraries of high schools for reference by teachers and advanced students.

Sadly enough, the editor, Dr. J. West Roosevelt, a most accomplished teacher, writer and physician, departed this life just before the final pages of his book issued from the press, hence is deprived of the satisfaction of enjoying a noble service well performed. The May issue of the *JOURNAL* chronicled his sudden taking off by pneumonia.

We are unwilling to close this imperfect sketch of what we are convinced will prove a useful book without a word of compliment to the publishers, who deserve the thanks of the profession of medicine for rescuing from the hands of irregulars a class of literature in which fakes and fakirs have enjoyed high carnival for many years. Notice is served on them by this work that they must give up the field to scientific men.

TRANSACTIONS OF THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION. Eighth annual meeting, held at Washington, D. C., November 12, 13 and 14, 1896. W. E. B. DAVIS, M. D., secretary, Birmingham, Ala. Published by the Association. Philadelphia: Wm. J. Dornan, Printer, 100 North Seventh street. 1896.

The annual volume of transactions of this association always furnishes pleasant reading. Moreover, it is one of the most instructive of the books of its class that comes to our table. Society transactions are very often dry in material and dull in their discussions; not so with this association. It is composed of live men who are advanced thinkers in their specialties, come to the meetings with something to say and say it in an interesting, instructive and succinct manner.

There is one criticism we should like to offer, and in doing so we wish to speak in an impersonal manner and not with reference to whatever may have been already published. In this period of medicine we are unable to concede the propriety of taking up the time of an aggressive association, whose moments are valuable, in

the reading of lengthy biographical sketches of men who have gone to their eternal rest. In most instances biographies and eulogies of such have already been published elsewhere, and the time occupied in reading them before busy associations might be better employed in scientific work. If thought best, they may be read by title and published in the annual volume.

The editor of this book of transactions is a skilful and experienced secretary, who puts together the three days' work of his society into the best possible shape, whether judged from a scientific or mechanical standpoint.

A TEXT-BOOK OF BACTERIOLOGY. By GEORGE M. STERNBERG, M. D., LL. D., Surgeon-General U. S. Army. Illustrated by heliotype and chromo-lithographic plates and 200 engravings. New York: William Wood & Company. 1896.

The manual of bacteriology, by the same author, published in 1893, had so large a sale and was so well received that it seemed advisable to issue a new work embodying all of the practical matter contained in the manual, together with such advances as have been made since the former date, and omitting all those portions of the older work which were in any respect theoretical, or purely scientific without practical application; in other words, to make a book especially fitted for the use of the practitioner and student of medicine. This the present volume accomplishes, and, with added illustrations, it is without exception the finest text-book of bacteriology published in any language.

The work is divided into four parts, Part I. dealing with the classification of morphology and general bacteriological technology; Part II. with general biological characters; Part III. with pathogenic bacteria, and Part IV. with the saphrophytes. It will be thus seen that the author has excluded from this text-book the detailed description of the nonpathogenic bacteria and the extensive bibliography found in the manual which was reviewed in the November, 1893, number of the JOURNAL. The book is handsomely printed, the plates beautiful and the illustrations exceedingly well executed.

W. C. K.

NEW TRUTHS IN OPHTHALMOLOGY as developed by G. C. SAVAGE, M. D., Professor of Ophthalmology in the Medical Department of Vanderbilt University, Ex-President of the Nashville Academy of Medicine, President of the Tennessee State Medical Society, Member of Eighth International Congress of Ophthalmology. With fifty-eight illustrations. 265 pages, 12mo, third edition. Price, \$2.00. Nashville, Tenn.: Published by the Author. 1896.

The popularity of this little work is evinced by its having reached the third edition. This edition contains several new chapters which will materially increase the demand for the work, as they treat of subjects of much interest, but of great perplexity,

to the ophthalmologist. These new chapters include, The functions of the oblique muscles, especially as they are related to oblique astigmatism; Obliquity of retinal images in oblique astigmatism, as shown by photography; Sthenic and asthenic orthophoria and heterophoria; Presbyopia deferred by rhythmic exercise of the ciliary muscle.

The author's views, while not fully endorsed by all, are well worthy of consideration and study. Their fuller development in this edition will be welcome.

A. A. H.

PRACTICAL POINTS IN NURSING, FOR NURSES IN PRIVATE PRACTICE. By EMILY A. M. STONEY, Graduate of the training school for nurses, Lawrence, Mass.; Superintendent of training school for nurses, Carney Hospital, South Boston, Mass. Octavo, pp. 456. Illustrated. Price, \$1.75 net. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

The author has written one of the best books on nursing that we have seen. It does not aim to take the place of a text-book on nursing for use in training schools, but to the graduate just entering upon private nursing, and to the home nurse, the work, replete in suggestions as to how to improvise the many sick-room necessities and how to meet the various emergencies which arise, should be invaluable. Not all the emergency treatment suggested is wise, as, for instance, the method of dealing with foreign bodies in the ear, but on the whole the nurse may safely follow the author's instructions.

The appendix includes a dose list and an excellent glossary.

M. J. F.

BOOKS RECEIVED.

A System of Surgery. In contributions by twenty-five English authors. Edited by Frederick Treves, F. R. C. S., Surgeon to, and Lecturer on, Surgery at the London Hospital; Examiner in Surgery at the University of Cambridge. Volume II. In one octavo volume of 1120 pages, with two colored plates and 487 illustrations. Cloth, \$8.00. Philadelphia and New York: Lea Brothers & Co.

An American Text-Book of Applied Therapeutics for the Use of Practitioners and Students. Edited by J. C. Wilson, M. D., Professor of the Practice of Medicine and Clinical Medicine in the Jefferson Medical College; Attending Physician to the Hospital of the Jefferson Medical College, to the German Hospital, and to the Pennsylvania Hospital, Philadelphia. Assisted by Augustus A. Eshner, M. D. Professor of Clinical Medicine in the Philadelphia Polyclinic; Attending Physician to the Philadelphia Hospital. Octavo, pp. 1326. Illustrated. Price, cloth, \$7.00; sheepskin and half Morocco, \$8.00; half Russia, \$9.50. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

A Handbook of Pathological Anatomy and Histology. With an introductory section on post mortem examinations and the methods of preserving and examining diseased tissues. By Francis Delafield.

M. D., LL. D., Professor of the Practice of Medicine, College of Physicians and Surgeons, Columbia College, New York, and T. Mitchell Prudden, M. D., Professor of Pathology and Director of the Laboratories of Histology, Pathology and Bacteriology, College of Physicians and Surgeons, Columbia College, New York. Fifth edition. Octavo, pp. viii.—846. Illustrated by 365 wood-engravings, printed in black and colors. New York: William Wood & Co. 1896.

The Medical and Surgical Uses of Electricity. By A. D. Rockwell, A. M., M. D., formerly Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital, etc. New edition. Octavo, pp. xvi.—612. Illustrated with 200 engravings. Price, \$4.50. New York: William Wood & Co. 1896.

Public Health Papers and Reports. Volume XX. Presented at the twenty-second annual meeting of the American Public Health Association, Montreal, Canada, September 25-28, 1894. Together with other papers and an abstract of the records and proceedings. Quarterly series, Volume I. Irving A. Watson, M. D., Secretary. Concord: Republican Press Association. 1895.

A Manual of Pharmacology and Therapeutics. By William Murrell, M. D., F. R. C. P., Physician to, and Lecturer on, Pharmacology and Therapeutics at the Westminster Hospital, etc., etc. Revised by Frederick A. Castle, M. D., Member of the committee for revision and publication of the Pharmacopœia of the United States of America, etc., etc. Octavo, pp. 516. New York: William Wood & Co. 1896.

Functional Disorders of the Nervous System in Women. By T. J. McGillicuddy, A. M., M. D., Consulting Physician to the Italian Hospital, New York, etc., etc. Small octavo, pp. 367. Illustrated. New York: William Wood & Co. 1896.

Eleventh Annual Report of the State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania. Transmitted to the Governor, December 1, 1895. Clarence M. Busch, State Printer of Pennsylvania. 1896.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Authors and Subjects. Second series, Volume I. A—Azzurri. Washington: Government Printing Office. 1896.

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The Student's Medical Dictionary. Including all the words and phrases generally used in medicine, with their proper pronunciation and definitions. Based on recent medical literature. By George M. Gould, A. M., M. D., Author of An illustrated dictionary of medicine, biology and allied sciences, etc., etc. With elaborate tables of the bacilli, micrococci, leucomains, ptomains, etc.: of the arteries, ganglia, muscles and nerves; of weights and measures, etc., etc. Tenth edition, rewritten and enlarged. Price, \$3.25. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1896.

Minor Surgery and Bandaging. By Henry R. Wharton, M. D., Demonstrator of Surgery in the University of Pennsylvania. New (3d) edition. In one 12mo volume of 594 pages, with 475 engravings, many being photographic. Cloth, \$3.00. Philadelphia: Lea Brothers & Co. 1896.

A Manual of Clinical Diagnosis by Microscopical and Chemical Methods. For students, hospital physicians and practitioners. By Charles E. Simon, M. D., Late Assistant Resident Physician Johns Hopkins Hospital, Baltimore. In one octavo volume of 504 pages, with 132 engravings and ten full-page colored plates. Cloth, \$3.50. Philadelphia and New York: Lea Brothers & Co. 1896.

Food in Health and Disease. By I. Burney Yeo, M. D., F. R. C. P., Professor of Therapeutics in King's College, London. New (2d) edition. In one 12mo volume of 592 pages, with four engravings. Cloth, \$2.50. Philadelphia and New York: Lea Brothers & Co., Publishers. 1896.

The Ready Reference Handbook of Diseases of the Skin. By George Thomas Jackson, M. D., Professor of Dermatology, Woman's Medical College of the New York Infirmary and in the University of Vermont; Chief of Clinic and Instructor in Dermatology, College of Physicians and Surgeons, New York. New (2d) edition. In one 12mo volume of 589 pages, with sixty-nine illustrations and a colored plate. Cloth, \$2.75. Philadelphia: Lea Brothers & Co. 1896.

A Manual of Materia Medica and Pharmacology. Comprising all organic and inorganic drugs, which are and have been official in the United States Pharmacopeia, together with important allied species and useful synthetics. For students of medicine, druggists, pharmacists and physicians. By David M. R. Culbreth, M. D., Professor of Botany, Materia Medica and Pharmacognosy in the Maryland College of Pharmacy, Baltimore. In one octavo volume of 812 pages, with 445 illustrations. Cloth, \$4.75. Philadelphia and New York: Lea Brothers & Co., Publishers. 1896.

Anatomy, Descriptive and Surgical. By Henry Gray, F. R. S., Lecturer on Anatomy at St. George's Hospital, London. New and thoroughly revised American edition, much enlarged in text, and in engravings, both colored and black. In one imperial octavo volume of 1239 pages, with 772 large and elaborate engravings on wood. Price of edition with illustrations in colors, cloth, \$7.00; leather, \$8.00. Price of edition with illustrations in black, cloth, \$6.00; leather, \$7.00. Philadelphia and New York: Lea Brothers & Co., Publishers. 1896.

A Manual of Venereal Diseases. By James R. Hayden, M. D., Chief of Venereal Clinic, College of Physicians and Surgeons, New York; Professor of Genito-Urinary and Venereal Diseases in the Medical Department of the University of Vermont, etc. In one 12mo volume of 263 pages, with forty-seven engravings. Cloth, \$1.50. Philadelphia and New York: Lea Brothers & Co., Publishers. 1896.

Ptomaines, Lencomaines, Toxins and Antitoxins; or the Chemical Factors in the Causation of Disease. By Victor C. Vaughan, Ph. D., M. D., Professor of Hygiene and Physiological Chemistry, and Frederick G. Novy, M. D., Junior Professor of Hygiene and Physiological Chemistry in the University of Michigan. New (3d) edition. In one 12mo

volume of 603 pages. Cloth, \$3.00. Philadelphia: Lea Brothers & Co. 1896.

An American Text-Book of Physiology. By Henry P. Bowditch, M. D., John G. Curtis, M. D., Henry H. Donaldson, Ph. D., W. H. Howell, Ph. D., M. D., Frederic S. Lee, Ph. D., Warren P. Lombard, M. D., Graham Lusk, Ph. D., W. T. Porter, M. D., Edward T. Reichert, M. D., and Henry Sewall, Ph. D., M. D. Edited by William H. Howell, Ph. D., M. D., Professor of Physiology in the Johns Hopkins University, Baltimore, Md. Large octavo, pp. 1052. Illustrated. Price, cloth, \$6.00; sheepskin and half Morocco, \$7.00. For sale by subscription only. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

A Practical Treatise on Materia Medica and Therapeutics. By Roberts Bartholow, M. A., M. D., LL. D., Professor Emeritus of Materia Medica, General Therapeutics and Hygiene in the Jefferson Medical College of Philadelphia, etc., etc. Octavo, pp. 866. Ninth edition, revised and enlarged. New York: D. Appleton & Co. 1896.

Report of the Commissioner of Education for the Year 1893-94. Volume I. Containing part 1. Washington: Government Printing Office. 1896.

Miscellany.

CLIMATE AND HEALTH, a publication of the weather bureau of the United States department of agriculture, has been discontinued, owing to the failure of Congress to make the necessary appropriation.

PARIS has 521 foreign medical men among the 2,922 in the city. It is supposed that New York has more than 600 native American medical men among its 3,000 practitioners.—*Medical Herald*.

THE LEGAL STATUS OF THE SKIAGRAPH.—A Boston court has ruled out X-ray photographs of injuries to a boy's head, which figured as exhibits in a \$50,000 suit for damages. Corporations will probably file away reports of this decision in the case of Renford vs. Rogers for future use.—*Journal of Nervous and Mental Diseases*.

BRAINS.—This organ of man is now in special request in Boston, the hub-city of brains. They are wanted for scientific study—for what special purpose or what end in view is not stated. Before long we may see a like demand for gastrocnemii, to determine how long one had used the wheel. No limit of field to scientific inquiry!—*Medical Herald*.



Amos G. Morton M.D.

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Original Communications.

REMARKS UPON THE HISTORY AND INTRODUCTION OF ANESTHESIA IN SURGERY.¹

IN COMMEMORATION OF THE SEMI-CENTENNIAL OF THE INTRODUCTION
OF ETHER AS AN ANESTHETIC AGENT.

BY ROSWELL PARK, A. M., M. D., Buffalo, N. Y.

Professor of Surgery.

FIFTY years ago today—that is to say, on the 16th of October, 1846,—there occurred an event which marks as distinct a step in human progress as almost any that could be named by the erudite historian. I refer to the demonstration of the possibility of alleviating pain during surgical operations. Had this been the date of a terrible battle, on land or sea, with mutual destruction of thousands of human beings, the date itself would have been signalised in literature and would have been impressed upon the memory of every schoolboy, while the names of the great military murderers who commanded the opposing armies would have been emblazoned upon monuments and the pages of history. But this event was merely the conquest of pain and the alleviation of human suffering, and no one who has ever served his race by contributing to either of these results has been remembered beyond his own generation or outside the circle of his immediate influence. Such is the irony of fate. The world erects imposing monuments or builds tombs, like that of Napoleon, to the memory of those who have been the greatest destroyers of their race; and so Cesar, Hannibal, Genghis Khan, Richard the Lionhearted, Gustavus Vasa, Napoleon and hundreds of other great military murderers have received vastly more attention, because of their race-destroying propensities and abilities, than if they had ever fulfilled fate in any other capacity. But the men like Sir Spencer Wells, who has

1. A lecture delivered at the Medical Department, University of Buffalo, October 16, 1896.

added his 40,000 years of life to the total of human longevity, or like Sir Joseph Lister, who has shown our profession how to conquer that arch enemy of time past, surgical sepsis, or like Morton, who first publicly demonstrated how to bring on a safe and temporary condition of insensibility to pain, are men more worthy in our eyes of lasting fame, and much greater heroes of their times, and of all time, yet are practically unknown to the world at large, to whom they have ministered in such an unmistakable and superior way.

This much, then, by way of preface and reason for commemorating in this public way the semi-centennial of this really great event. Because the world does scant honor to these men, we should be all the more mindful of their services, and all the more insistent upon their public recognition.

Of all the achievements of the Anglo-Saxon race, I hold it true that the two greatest and most beneficent were the discovery of ether and the introduction of antiseptic methods,—one of which we owe to an American, the other to a Briton.

The production of deep sleep and the usual accompanying abolition of pain have been subjects which have ever appeared, in some form, in myth or fable, and to which poets of all times have alluded, usually with poetic license. One of the most popular of these fables connects the famous oracle of Apollo, at Delphi, whence proceeded mysterious utterances and inchoate sounds, with convulsions, delirium and insensibility upon the part of those who approached it. To what extent there is a basis of fact in this tradition can never be explained, but it is not improbable from what we now know of hypnotic influence.

From all time it has been known that many different plants and herbs contained principles which were narcotic, stupefying or intoxicating. These properties have especially been ascribed to the juices of the poppy, the deadly nightshade, henbane, the Indian hemp and the mandrágora, which for us now is the true mandrake, whose juice has long been known as possessing soporific influence. Ulysses and his companions succumbed to the influence of *Nepenthe*; and, nineteen hundred years ago, when crucifixion was a common punishment of malefactors, it was customary to assuage their last hours upon the cross by a draught of vinegar with gall or myrrh, which had real or supposititious narcotic properties. Even the prophet Amos, seven hundred years before the time of Christ, spoke of such a mixture as this as “the wine of the con-

demned," for he says, in rehearsing the iniquities of Israel by which they had incurred the anger of the Almighty : "And they lay themselves down upon the clothes laid to pledge by every altar, and they drink the wine of the condemned in the house of their God," (Chap. II., verse 8,) meaning thereby undoubtedly that these people, in their completely demoralised condition, drank the soporific draught kept for criminals. Herodotus mentions a habit of the Scythians, who employed a vapor generated from the seed of the hemp for the purpose of producing an intoxication by inhalation. Narcotic lotions were also used for bathing the people about to be operated upon. Pliny, who perished at the destruction of Herculaneum, A. D. 79, testified to the soporific power of the preparations made from mandrágora upon the faculties of those who drank it. He says : "It is drunk against serpents and before cuttings and puncturings, lest they should be felt." He also describes the indifference to pain produced by drinking a vinous infusion of the seeds of *eruca*, called by us the rocket, upon criminals about to undergo punishment. Dioscorides relates of mandrágora that "some boil down the roots in wine to a third part, and preserve the juice thus procured, and give one cyathus of this to cause the insensibility of those who are about to be cut or cauterised." One of his later commentators also states that wine in which mandrágora roots have been steeped "does bring on sleep and appease pain, so that it is given to those who are to be cut, sawed or burnt in any parts of their body, that they may not perceive pain." Apuleius, about a century later than Pliny, advised the use of the same preparation. The Chinese, in the earlier part of the century, gave patients preparations of hemp, by which they became completely insensible and were operated upon in many ways. This hemp is the *cannabis Indica* which furnishes the *Hasheesh* of the Orient and the intoxicating and deliriating *Bhang*, about which travelers in the East used to write so much. In Barbara, for instance, it was always taken, if possible, by criminals condemned to suffer mutilation or death.

According to the testimony of medieval writers, knowledge of these narcotic drugs was practically applied during the last of the Crusades, the probability being that the agent principally employed was this same *hasheesh*. Hugo di Lucca gave a complete formula for the preparation of the mixture, with which a sponge was to be saturated, dried, and then, when wanted, was to be soaked in warm water, and afterward applied to the nostrils, until he who was to

be operated upon had fallen asleep; after which he was aroused with the vapor of vinegar.

Strangely enough, the numerous means of attaining insensibility, then more or less known to the common people, and especially to criminals and executioners, do not appear to have found favor for use during operations. Whether this was due to unpleasant after-effects, or from what reason, we are not informed. Only one or two surgical writers beside Guy de Chauliac (1498) refer in their works to agents for relief of pain, and then almost always to their unpleasant effects, the danger of producing asphyxiation, and the like. Ambrose Paré wrote that preparations of mandrágora were formerly used to avert pain. In 1579, an English surgeon, Bulleyn, affirmed that it was possible to put the patient into an anesthetic state during the operation of lithotomy, but spoke of it as a "terrible dream." One Meisner spoke of a secret remedy used by Weiss, about the end of the XVII. Century, upon Augustus II., king of Poland, who produced therewith such perfect insensibility to pain that an amputation of the royal foot was made without suffering, even without royal consent. The advice which the Friar gave Juliet regarding the distilled liquor which she was to drink and which should presently throw her into a cold and drowsy humor, although a poetic generality, is Shakespeare's recognition of a popular belief. Middleton, a tragic writer of Shakespeare's day, in his tragedy known as "Women beware Women," refers in the following terms to anesthesia in surgery :

" I'll imitate the pities of old surgeons
To this lost limb, who, ere they show their art,
Cast one asleep : then cut the diseased part."

Of course, of all the narcotics in use by educated men, opium has been, since its discovery and introduction, the most popular and generally used. Surgeons of the last century were accustomed to administer large doses of it shortly before an operation, which, if serious, was rarely performed until the opiate effect was manifested. Still, in view of its many unpleasant after-effects, its use was restricted, so far as possible, to extreme cases.

Baron Larrey, noticing the benumbing effect of cold upon wounded soldiers, suggested its introduction for anesthetic purposes, and Arnott, of London, systematised the practice, by recommending a freezing mixture of ice and salt to be laid directly upon the part to be cut. Other surgeons were accustomed to put their patients into a condition of either alcoholic intoxication or alcoholic

stupor. Long-continued compression of a part was also practised by some, by which a limb could, as we say, be made to go to sleep. A few others recommended to produce faintness by excessive bleeding. It was in 1776 that the arch-fraud Mesmer entered Paris and began to initiate people into the mysteries of what he called *animal magnetism*, which was soon named mesmerism, after him. Thoroughly degenerate and disreputable as he was, he nevertheless taught people some new truths, which many of them learned to their sorrow, while in the hospitals of France and England severe operations were performed upon patients thrown into a mesmeric trance, and without suffering upon their part. That a scientific study of the mesmeric phenomena has occupied the attention of eminent men in recent years, and that hypnotism is now recognised as an agent often capable of producing insensibility to pain is simply true, as these facts have been turned to the real benefit of man by scientific students rather than by quacks and charlatans.

In 1799, Sir Humphrey Davey, being at that time an assistant in the private hospital of Dr. Beddoes, which was established for treatment of disease by inhalation of gases, and which he called The Pneumatic Institute, began experimenting with nitrous oxide gas, and noticed its exhilarating and intoxicating effects; also the relief from pain which it afforded in headache and toothache. As the results of his reports, a knowledge of its properties was diffused all over the world, and it was utilised both for amusement and exhibition purposes. Davey even wrote as follows of this gas :

As nitrous oxide, in its extensive operation, appears capable of destroying physical pain, it may probably be used with advantage during surgical operations in which no great effusion of blood takes place.

It is not at all unlikely that Colton and Wells, to be soon referred to, derived encouragement, if not incentive, from these statements of Davey. Nevertheless, Velpeau, perhaps the greatest French surgeon of his day, wrote in 1839, that "to escape pain in surgical operations is a chimera which we are not permitted to look for in our day."

Sulphuric ether, as a chemical compound, was known from the XIII. Century, for reference was made to it by Raymond Lully. It was first spoken of by the name of ether by Godfrey in the Transactions of the London Royal Society in 1730, while Isaac Newton spoke of it as the ethereal spirits of wine. During all of

the previous century it was known as a drug, and allusion to its inhalation was made in 1795 in a pamphlet, probably by Pearson. Beddoes, in 1796, stated that "it gives almost immediate relief, both to the oppression and pain in the chest, in cases of pectoral catarrh." In 1815, Nysten spoke of inhalation of ether as being common treatment for mitigating pain in colic, and in 1816 he described an inhaler for its use. As early as 1812 it was often inhaled for experiment or amusement, and so-called "ether frolics" were common in various parts of the country. This was true, particularly for our purpose, of the students of Cambridge and of the common people in Georgia in the vicinity of Long's home. It probably is for this reason that a host of claimants for the honor of the discovery appeared so soon as the true anesthetic properties of the drug were demonstrated.

There probably is every reason to think that, either by accident or design, a condition of greater or less insensibility to pain had been produced between 1820 and 1846, by a number of different people, educated and ignorant, but that no one had the originality or the hardihood to push these investigations to the point of determining the real usefulness of ether. This was partly from ignorance, partly from fear, and partly because of the generally accepted impossibility of producing safe insensibility to pain. So, while independent claim sprang up from various sources, made by aspirants for honors in this direction, it is undoubtedly as properly due to Morton to credit him with the introduction of this agent as an anesthetic as to credit Columbus with the discovery of the New World, in spite of certain evidences that some portions of the American continent had been touched upon by adventurous voyagers before Columbus ever saw it.

The terms "anesthesia" and the adjective "anesthetic" were suggestions of Dr. Oliver Wendell Holmes, who early proposed their use to Dr. Morton in a letter which is still preserved. He suggests them with becoming modesty, advises Dr. Morton to consult others before adopting them, but, nevertheless, states that he thinks them apt for that purpose. The word anesthesia, therefore, is just about of the same age as the condition itself, and it, too, deserves commemoration upon this occasion.

As one reads the history of anesthesia, which has been written up by a number of different authors, each, for the most part, having some particular object in view, or some particular friend whose claims he wishes especially to advocate, he may find mentioned at

least a dozen different names of men who are supposed to have had more or less to do with this eventful discovery. But, for all practical purposes, one may reduce the list of claimants for the honor to four men, each of whose claims I propose to briefly discuss. These men were Long, Wells, Jackson and Morton. Of these four, two were dentists and two practising physicians, to whom fate seems to have been unkind, as it often is, since three of them at least died a violent or distressing death, while the fourth lived to a ripe old age, harassed at almost every turn by those who sought to decry his reputation or injure his fortunes.

CRAWFORD W. LONG was born in Danielsville, Ga., in 1816. In 1839 he graduated from the Medical Department of the University of Pennsylvania. In the part of the country where Long settled it was a quite common occurrence to have what were known as "ether frolics" at social gatherings, ether being administered to various persons to the point of exhilaration, which in some instances was practically uncontrollable. Long's friends claim that he had often noticed that when the ether effect was pushed to this extent the subjects of the frolic became oblivious to minor injuries, and that these facts, often noticed, suggested to his mind the use of ether in surgical operations. There is good evidence to show that Long first administered ether for this purpose on the 30th of March, 1842, and that on June 6th he repeated this performance upon the same patient; that in July he amputated a toe for a negro boy, but that the fourth operation was not performed until September of 1843. In 1844 a young man, named Wilhite, who had helped to put a colored boy to sleep at an ether frolic in 1839, became a student of Dr. Long's, to whom Long related his previous experiences. Long had never heard of Wilhite's episode, but had only one opportunity, in 1845, to try it, again upon a negro boy. Long lived at such a distance from railroad communication (130 miles) as to have few advantages, either of practice, observation or access to literature. Long made no public mention of his use of ether until 1849, when he published *An Account of the First Use of Sulphuric Ether by Inhalation as an Anesthetic in Surgical Operations*, stating that he first read of Morton's experiments in an editorial in the *Medical Examiner* of December, 1846, and again later; on reading which articles he determined to wait before publishing any account of his own discovery, to see whether anyone else would present a prior claim. No special attention was paid to Long's article, as it seemed that he merely desired to place

himself on record. There is little, probably no reasonable, doubt as to Long's priority in the use of ether as an anesthetic, although it is very doubtful if he carried it, at least at first, to its full extent. Nevertheless Long was an isolated observer, working entirely by himself, having certainly no opportunity and apparently little ambition to announce his discovery, and having no share in the events by which the value of ether was made known to the world. Long's strongest advocate was the late Dr. Marion Sims, who made a strong plea for his friend, and yet was not able to successfully establish anything more than has just been stated. As Dr. Morton's son, Dr. W. J. Morton, of New York, says, when writing of his father's claim : "Men used steam to propel boats before Fuller ; electricity to convey messages before Morse ; vaccine virus to avert smallpox before Jenner ; and ether to annul pain before Morton."

But these men are not generally credited with their introduction by the world at large and, he argues, neither should Long or the other contestants be given the credit due Morton himself. In fact, Long writes of his own work that the result of his second experiment was such as to make him conclude that ether would only be applicable in cases where its effects could be kept up by constant use ; in other words, that the anesthetic state was of such short duration that it was to him most unsatisfactory. Sir James Paget has summed up the relative claims of our four contestants in an article entitled *Escape from Pain*, published in the *Nineteenth Century* for December, 1879. He says :

While Long waited, and Wells turned back, and Jackson was thinking, and those to whom they had talked were neither acting nor thinking. Morton, the practical man, went to work and worked resolutely. He gave ether successfully in severe surgical operations ; he loudly proclaimed his deeds and he compelled mankind to hear him.

HORACE WELLS was born in Hartford, Vt., in 1815. In 1834 he began to study dentistry in Boston, and after completing his studies began to practise in Hartford, Ct. He was a man of no small ingenuity, and devised many novelties for his work. In December, 1844, he listened to a lecture delivered by Dr. Colton, who took for his subject nitrous oxide gas, the amusing effects of which he demonstrated to his audience upon a number of persons who visited the platform for that purpose. Wells was one of these. Wells, moreover, noticed that another young man, who bruised himself while under its influence, said afterward that he had

not hurt himself at all. Wells then stated to a bystander that he thought that if one took enough of that kind of gas he could have a tooth extracted and not feel it. He at once called upon a neighboring dentist friend and made arrangements to test the anesthetic effects of the gas upon himself the next morning. Accordingly Colton gave him the gas, and Riggs, the friend, extracted the tooth; and Wells, returning to consciousness, assured them both that he had not suffered a particle of pain. He began at once to construct an apparatus for its manufacture. Dr. Marcey, of Hartford, then informed Wells that while a student at Amherst he and others had often inhaled nitrous oxide as well as the vapor of ether, for amusement, and suggested to Wells to try ether. After a few trials, however, it was found more difficult to administer, and Wells accordingly resolved to adhere to gas alone. This was in 1844, two years after Long's obscure experiments, of which, of course, they were ignorant. In 1845, Wells visited Boston for the purpose of introducing his discovery, and among others called upon his former partner, Morton, trying to establish the use of the gas. He soon became discouraged, however, and returned to Hartford, resuming his practice. There he continued to use gas for about two years, but failed to secure its introduction into general surgery, owing to prejudice and ignorance on the part of dentists and physicians alike.

Wells's claims have been advocated by many of his fellow-citizens, and in Bushnell Park, in Hartford, stands a monument erected by the city and the state, dedicated to Horace Wells, "who discovered anesthesia, November, 1844."

C. T. JACKSON was born in Plymouth, Mass., in 1805. He graduated in the Harvard Medical School in 1829, after which he went abroad, where he remained for several years, made the acquaintance of the most distinguished men, experimented in general science, electricity and magnetism and even devised a telegraphic apparatus, similar to that which Morse patented a year later. Returning, in 1835, he opened in Boston a laboratory for instruction in analytical chemistry, the first of its kind in the country. He also made quite a reputation as a geologist and mineralogist and received official appointments from Maine, Rhode Island, New Hampshire and other states. In 1845 he discovered and opened up copper and iron mines in the Lake Superior district. In 1846 and 1847 he was much aroused by Morton's experiments with sulphuric ether, and claimed even that he had suggested the

use of ether to Morton, claiming also that he had himself been relieved of an acute distress by inhalation of ether vapor, and that it was from reflection on the phenomena presented in his own case that the possibility of its use for relief of pain during surgical operations suggested itself to him. This led to a triangular conflict for the priority of discovery between Wells, Jackson and Morton, each claiming the honor for himself. Wells's health soon gave way. He went abroad and got recognition from the French Institute and the Paris Academy of Sciences, which did not, however, endorse his claim as discoverer nor accept nitrous oxide as an anesthetic. Wells returned to find that Morton was on the tide of popular favor, the public having endorsed ether as the only reliable anesthetic. His mind became unbalanced, and in a fit of temporary aberration he ended his own life in a prison cell in New York city in 1848.

Wells being out of the way, Jackson became Morton's most violent opponent, and the two indulged in a most bitter fight and unseemly discussion. A few years later, Jackson, who, as remarked, had an extensive acquaintance abroad, visited Europe and presented his claim to the credit of the discovery of ether, before various individuals and learned bodies, and so well did he work upon the French Institute as to be recognised as the discoverer of modern anesthesia. A select committee of the House of Representatives, to whom in 1854 Congress referred the matter, announced the following conclusions :

First, that Dr. Horace Wells did not make any discovery of the anesthetic properties of the vapor of ether which he himself considered reliable and which he thought proper to give to the world. That his experiments were confined to nitrous oxide, but did not show it to be an efficient and reliable anesthetic agent.

Second, that Dr. Charles T. Jackson does not appear at any time to have made any discovery in regard to ether which was not in print in Great Britain some years before.

Fifth, that the whole agency of Dr. Jackson in the matter appears to consist entirely in his having made certain suggestions to aid Dr. Morton to make the discovery.

In 1873, Jackson's mind gave way, and after seven years of confinement in an asylum he died in 1880, at the age of 75, having been the recipient of many honors from foreign potentates and learned societies.

WILLIAM T. G. MORTON was born in Charleston, Mass., in 1819. After a disastrous experience in business he was sent to Baltimore in 1840 and began the study of dentistry. In 1841 he entered the dental office of Horace Wells as student and assistant, becoming a partner in 1842. In 1843 the partnership was dissolved, Wells removing to Hartford, as before stated. Morton, ambitious for a medical degree, entered his name as a student in the office of Charles T. Jackson, in 1844, and the same year matriculated in the Harvard Medical School, though he never graduated. Having learned through Wells of the latter's successful use of nitrous oxide gas, but not knowing how to make it, he sought the advice of Dr. Jackson, who informed him that its preparation entailed considerable difficulty, and inquired for what purpose he wanted it. On Morton's replying that he wished to use it to make patients insensible to pain, Jackson suggested the use of sulphuric ether, as Marcey had suggested it to Wells two years previously, saying that it would produce the same effect and did not require any apparatus. Jackson also told Morton of the ether frolics common at Cambridge among the students. That same evening, September 30, 1846, Morton administered ether to a patient and extracted a tooth for him without pain. The next day he visited the office of a patent lawyer, for the purpose of securing a patent upon the new discovery. This lawyer ascertained that Jackson had been intimately connected with its suggestion, and came to the conclusion that a patent could not safely issue to either one independently of the other. But Jackson being a member of the State Medical Society, against whose ethical code it is to patent discoveries that pertain to the welfare of patients, and fearing the censure of his colleagues, agreed at once to assign his right over to Morton, receiving in return a 10 per cent. commission upon all that the latter made out of it. Morton, as a dentist, having no more compunction than than dentists have now upon the securing of a patent,—in other words, being actuated by no fine ethical scruples,—secured the patent, and then called upon Dr. J. Mason Warren, one of the surgeons in the Massachusetts General Hospital. Warren promised his coöperation and appointed the 16th of October, 1846, for the first public trial. Upon this occasion the clinic room was filled with visitors and students, when Morton placed the young man under the influence of his "letheon," as he called it then; after which Warren removed a tumor from his neck. The trial was most successful. Another took place on the following

day and on November 7th an amputation and an excision of the jaw were made, both patients being under the influence of letheon and oblivious to pain. At this time the nature of the anesthetic agent was kept a secret, the vapor of ether being disguised by aromatics, so as not to be recognised by anyone present.

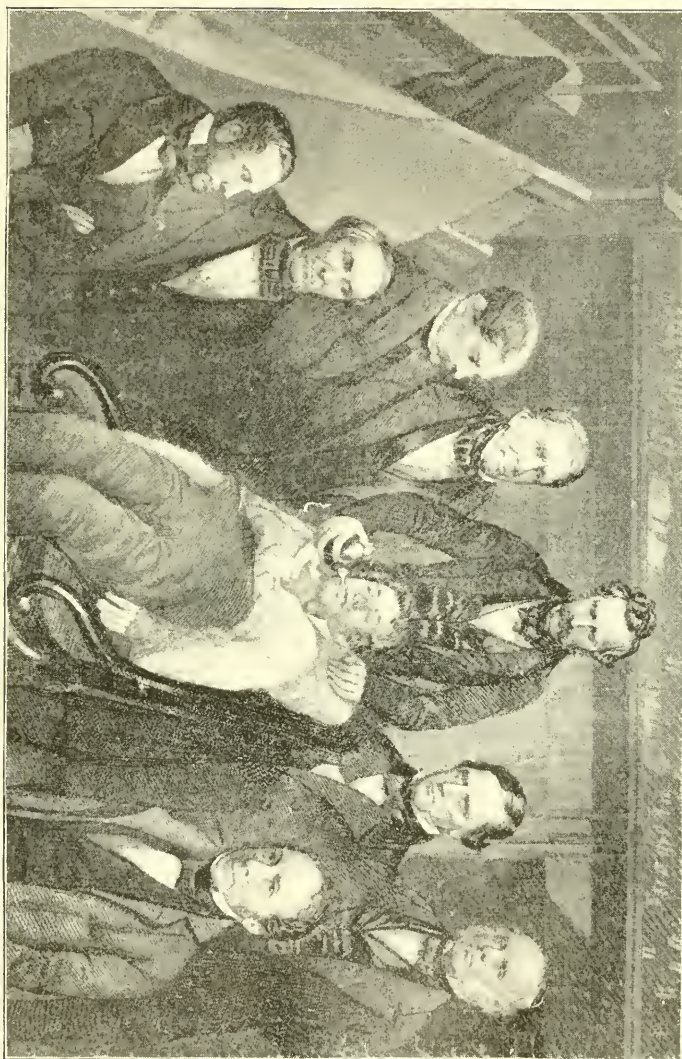
True to the highest traditions of their craft, the staff of the Massachusetts General Hospital now met and declined to make further use of a drug whose composition was thus kept secret. It was then that Morton revealed the exact nature of it as sulphuric ether, disguised with aromatic oils. In a report made by the commissioner of patents, it was set forth that,

For many years it had been known that the vapor of sulphuric ether, when freely inhaled, would intoxicate as does alcohol when taken into the stomach, but that the former was much more temporary in its effects. But notwithstanding the records of its effects to this extent, which were familiar to so many, no surgeon had ever attempted to substitute it for the palliatives in common use previous to surgical operations. That, in view of these and other considerations, a patent had been granted for the discovery.

In 1846 an English patent was obtained.

Morton soon began the attempt to sell office rights, as do the dentists of today, while the medical profession was then, as ever, antagonistic to patents, holding them to be subversive of general good. His patent was soon opposed and then generally infringed upon. Litigation followed without end and the government stultified itself by refusing to recognise the validity of the patent issued by itself. And so, without any compensation to the discoverer, ether soon came into general use in this country as abroad. While receiving many congratulations from friends and humanitarians, Morton's success aroused the jealousy of some of his professional brethren, among them one Dr. Flagg, who commenced a terrible onslaught upon the new application of ether and its promoter. By his machinations a meeting of Boston dentists was called and a committee of twelve appointed to make a formal protest against anesthesia. This committee published a manifesto in the *Boston Daily Advertiser*, in which all sorts of untoward effects and unpleasant results were attributed to the new anesthetic. This proclamation was spread broadcast, and did Morton, for the time, very much harm. Equally obstreperous was Dr. Westcott, connected with the Dental College in Baltimore. He made fun of Morton's "sucking bottles," as his inhalers were dubbed; and in

THE FIRST PUBLIC DEMONSTRATION OF ETHERISATION AT THE MASSACHUSETTS GENERAL HOSPITAL.



Dr. A. A. Gould. Dr. J. C. Warren. Dr. W. T. G. Morton. Dr. Samuel Parkman. Dr. S. D. Townsend.
Dr. H. J. Bigelow. Dr. J. Mason Warren. Dr. George Hayward.

various of the medical and secular journals of the day, bitter, often foolish and absurd, attacks were made. The editors of the *New Orleans Medical and Surgical Journal* said :

That the leading surgeons of Boston could be captivated by such an invention as this, heralded to the world under such auspices and upon such evidences of utility and safety as are presented by Dr. Bigelow, excites our amazement. Why, mesmerism, which is repudiated by the savants of Boston, has done a thousand times greater wonders, and without any of the dangers here threatened. What shall we see next ?

These and similar statements created a very strong prejudice against Morton, who, in December, 1846, sent to Washington, to a nephew of Dr. Warren, to endeavor to urge upon the government the advantages of employing ether in the army during the Mexican war, then in progress. The chief of the Bureau of Medicine and Surgery reported that the article might be of some service for use in large hospitals, but did not think it expedient for the department to incur any expense by introducing it into the general service ; while the acting surgeon-general believed that the highly volatile character of the substance itself made it ill-adapted to the rough usage it would necessarily encounter upon the field of battle, and accordingly declined to recommend its use.

In January of 1853, Morton demonstrated at the infirmary in Washington, before a congressional committee and others, the anesthetic effect of ether, which he continued through a dangerous and protracted surgical operation. This was the result of a challenge to compare the effects of nitrous oxide and those of ether, the advocates of the former not putting in an appearance.

The balance of Morton's life seems to have been spent in continued jangles. The government, having repudiated its own patent, was repeatedly besought by memorials and through the influence of members of Congress to bestow some testimonial upon or make some money return to Morton for his discovery. Several times he came near a realisation of his hopes in this respect, when the action of some of his enemies or the termination of a congressional session, or some other accident, would doom him again to disappointment. The pages of evidence that were printed, the various reports issued through or by government officers, the memorials addressed from various individuals and societies, if all printed together, would make a large volume ; but all of these were of no avail. Morton spent all his means, as he spent his energies and time, in futile endeavor to get pecuniary recognition

of his discovery, but was doomed to disappointment. He seemed alike a victim of unfortunate circumstances and of treachery and animosity upon the part of his opponents. Especially did the fight wage warm between him and his friends and Jackson. Plots to ruin his business were repeatedly hatched and his life was made miserable in many ways. Mere temporary sops to wounded vanity and impaired fortune were the honorary degrees and the testimonials that came to him from various institutions of learning and foreign societies. In 1850 both Morton and Jackson received from the French Academy prizes valued at 2,500 francs each. Finally, Morton fell into a state of nervous prostration, suffered from anxiety and insomnia, and in a fit of temporary aberration exposed himself in Central Park, New York, became unconscious and was taken to St. Luke's hospital, dying just as he reached the institution, on the 15th of July, 1868. In Mount Auburn cemetery, in Boston, there stands a beautiful monument to William T. G. Morton, bearing this inscription: "Inventor and revealer of anesthetic inhalation, before whom in all time surgery was agony; by whom pain in surgery was averted and annulled; since whom science has control of pain."

Again, in the Public garden in Boston there was erected, in 1867, a beautiful monument to the honor of the discoverer of ether, upon whom at that time they could not decide. Upon the front are these words: "To commemorate that the inhaling of ether causes insensibility to pain, first proven to the world at the Massachusetts General hospital, in Boston, October, A. D. 1846." Upon the right side are the words: "'Neither shall there be any more pain.'—Revelations." Upon the left: "'This also cometh forth from the Lord of Hosts, which is wonderful in counsel and excellent in working.'—Isaiah." And upon the other; "In gratitude for the relief of human suffering by the inhaling of ether, a citizen of Boston has erected this monument, A. D. 1867. The gift of Thomas Lee."

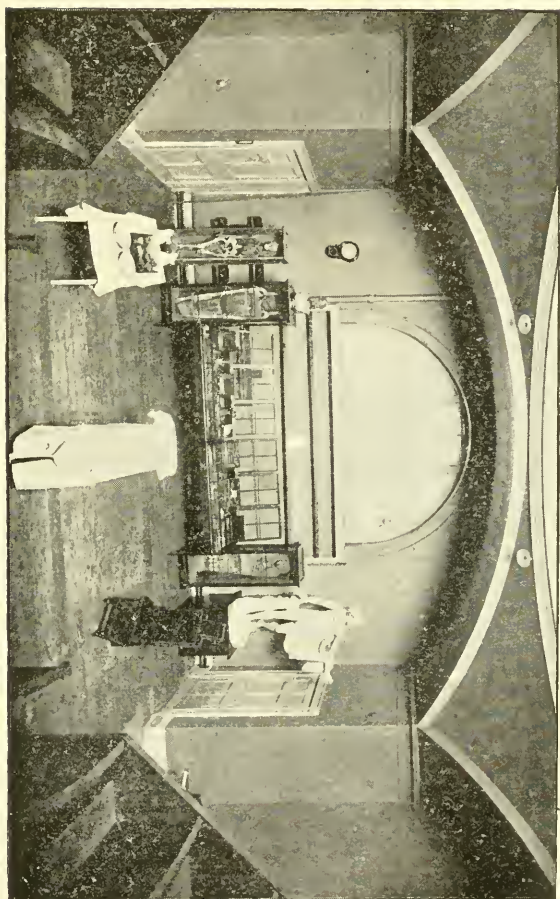
Summing up, then, the claims of our four contestants in the light of a collected history of the merits of each, it would appear that Wells first made public use of nitrous oxide gas for limited purposes, but failed to introduce it into general professional use. That Long, in an isolated rural practice, a few times used ether, with which he produced probably only partial insensibility to pain, and that he had apparently discontinued its use before learning of Morton's researches. That Jackson made no claim to the use of

the agent on his own part, but simply having suggested it to Morton. And, finally, that Morton quickly accepted the suggestion, made careful and scientific use thereof, but especially, and above all other things, first *demonstrated* to the world at large the capability and the safety of this agent as an absolute, reliable and efficient anesthetic. So, though Morton permitted his cupidity to run away with finer ethical considerations, and attached a higher pecuniary than humanitarian value to sulphuric ether, he, nevertheless, must be generally credited with having, to use the modern expression, "promoted" its introduction, and to have shown to the world at large what an inestimably valuable therapeutic agent had been added to our resources for the control of pain.

The synthetic compound known as chloroform was discovered independently by three different observers between 1830 and 1832. These were respectively Guthrie, of Sackett's Harbor, N. Y.; Soubeiran, of France, and Liebig, of Germany. The honor of introducing it to the profession as an anesthetic for surgical purposes is universally accorded to James Y. Simpson, then of Edinburgh.

Yet claim was at one time advanced in favor of Surgeon-Major Furnell, of the Madras Army Medical Corps, who in the summer preceding the announcement of Simpson's brilliant discovery experimented with what is known as chloric ether, which is not an ether at all, but a solution of chloroform in alcohol. It is said that he found that it would produce the same results as sulphuric ether, with less unpleasant sensations, and suggested its use to Coote, a well-known London surgeon. However, such claims as those made in favor of Furnell are no more entitled to recognition than are those of Wells or Long in the matter of the introduction of ether to the public; for although individual observations were favorable to the compound, it never came to public notice on this surmise.

SIR JAMES Y. SIMPSON was born in 1811, took the degree of doctor of medicine in 1832 and advanced rapidly in his professional career until, in January, 1847, he was appointed one of her majesty's physicians in Scotland. Having already obtained a large reputation, particularly in midwifery and gynecology, he directed his special attention toward the use of anesthetics in childbirth, and he had quickly recognised the value of sulphuric ether when introduced the previous year. He sought, however, for a substitute of equal power, having less disagreeable odor and unpleasant after-



OLD AMPHITHEATRE, MASSACHUSETTS GENERAL HOSPITAL, AS IT WAS IN 1846.

From the *Boston Medical and Surgical Journal*, October 15, 1896.

effect. Upon inquiry of his friend Waldie, Master of Apothecaries Hall of Liverpool, if he knew of a substance likely to be of service in this direction, Waldie, familiar with the composition of chloric ether, suggested its active principle chloroform ; with which Simpson experimented, and, upon the 4th of November, 1847, established its anesthetic properties. These he first made known to the Medico-Chirurgical Society of Edinburgh in a paper read November 10th. Three days later a public test was to have been made at the Royal Infirmary, but Simpson, who was to administer the chloroform, being unavoidably detained, the operation was done as heretofore without an anesthetic, and this patient died during the operation. You can readily see that had this occurred under chloroform it would have been ascribed to the new drug, which would then and there have received its death blow. As it was, the first public trial took place two days later and the test was most successful.

One would think that such a boon as Simpson had here offered to the world would have been gratefully—not to say greedily—accepted by all. Simpson's position was such as to give the new anesthetic every advantage that his already great reputation could attach to it, and it became at once the agent in common use in midwifery practice. But the Scotch clergy of his day still possessed altogether too much of the old fanatic spirit of the church of the middle ages. One is never allowed to forget, in scanning the history of medicine, how bitterly the church has opposed, until recently, every advance in our science and our art. It was in A. D. 995, for instance, that the son of one of the Venetian Doges was married, in Venice, to a sister of the emperor of the Eastern Roman Empire. At the marriage feast the princess produced a silver fork and gold spoon, table novelties which excited both amusing and angry comment. But the Venetian aristocracy took up with this new table fad, and forks and spoons as substitutes for fingers soon became the fashion. But the puissant church disapproved most strongly even of this arrangement, for priests went so far as to say, "to use forks was to deliberately insult the kind Providence which had given to man fingers on each hand." It was this same spirit that led the Scotch clergy to attack Simpson most vehemently and denounce him from their pulpits as one who violated the moral law, for they said : "Is it not ordained in Scripture, 'in sorrow shalt thou bring forth children' ? and yet this man would introduce a substance calculated to mitigate this sorrow." We of today

can scarcely imagine the rancor with which these attacks were made for many months. Finally, however, these fanatic defenders of the faith were routed by a quotation from the same Scriptures in which they claimed to find their authority; for Simpson, most adroitly turning upon them with their own weapons, called their attention to the first chapter of Genesis, in which an account of Eve's creation appears, and reminded them that when Eve was formed from the rib of Adam, the Lord "caused a deep sleep to fall upon" him. So weak was their cause that with this single quotation their opposition subsided and within a week or two the entire Scotch clergy were silenced. Sir James Simpson received from his own government that which was never accorded to Morton: that is, due recognition of the great service he had rendered humanity. He died in 1870, and upon his bust, which stands in Westminster Abbey, are the following words: "To whose genius and beneficence the world owes the blessings derived from the use of chloroform for the relief of suffering."

It is scarcely necessary that I delay you now with an account of all of the other ethereal anesthetic agents which have from time to time been advocated since the memorable days to which I have devoted most of my time tonight. Two only are at present ever thought of—namely, bichlorid of methylene and bromide of ethyl—and these are used by only a few, though each has its advantages. It is well known that nearly all of the ethers have more or less of anesthetic property coupled with many dangers and disadvantages. Sulphuric ether and chloroform hold the boards today as against any and all of their competitors.

Nitrous oxide gas, as already mentioned, was known to and used by Wells in Hartford. With the advent of ether this gas fell at once into disuse, to be revived some fifteen years after the death of Wells, mainly through the use of Dr. G. Q. Colton. Since this time its use has been quite universal, although confined for the most part to the offices of dentists. Its great advantages are ease of administration and rapidity of recovery, making it especially useful for their purposes, while the difficulties attendant upon prolonged anesthesia by it make it less useful for the surgeon.

I will spend no further time upon it nor upon the subject save to do justice to modern anesthesia by a very different method and by means of a very different drug, which is today in so common use that we almost forget to mention the man to whom we owe it. I allude to *Cocaine* and its discoverer, KOLLER.

Cocaine is now such a universally recognised local anesthetic that there is the best of reason for referring to it here—the more so because it affords another opportunity to do honor to a discoverer, who has rendered a most important service to not only our profession, but to the world in general.

The principal active constituent of coca leaves was discovered about 1860 by Niemann, and called by him cocaine. It is an alkaloid which combines with various acids in the formation of salts. It has the quality of benumbing raw and mucous surfaces, for which purpose it was applied first in 1862 by Schroff, and in 1868 by Moreno. In 1880, Van Aurap hinted that this property might some day be utilised. Karl Koller logically concluded from what was known about it that this anesthetic property could be taken advantage of for work about the eye, and made a series of experiments upon the lower animals, by which he established its efficiency and made a brilliant discovery. He reported his experiments to the Congress of German Oculists, at Heidelberg, in 1884. News of this was transmitted with great rapidity, and within a few weeks the substance was used all over the world. Its use spread rapidly to other branches of surgery, and cocaine local anesthesia became quickly an accomplished fact. More time was required to point out its disagreeable possibilities, its toxic properties and the like, but it now has an assured and most important place among anesthetic agents, and has been of the greatest use to probably 10 per cent. of the civilised world. To Koller is entirely due the credit of establishing its remarkable properties. Had he patented his discovery he would have been vastly richer in pocket, though poorer in fame, than at present. He is now established in New York, where he enjoys a modest competency, but is by no means in receipt of the income which is properly his due from the world at large. To a man who has been the means of relieving as much pain as Karl Koller, no amount of pecuniary return is too great.

510 DELAWARE AVENUE.

For phlebitis after typhoid the *Western Medical Review* recommends keeping the limb elevated and at rest; an ointment with equal parts of ointments of belladonna, mercury and iodine compound and vaseline; the application of pressure by means of a flannel bandage; and cautious massage as the swelling subsides.—*Denver Medical Times*.

INTRODUCTORY REMARKS AT THE SEMI-CENTENNIAL COMMEMORATION OF THE DISCOVERY OF ANESTHESIA.

BY JAMES O. PUTNAM, Chancellor of the University.

“**P**EACE hath her victories.” We meet on this occasion to commemorate a victory of science over pain. Important as have been the inventions of our century, which have given wings to commerce, which have put a girdle of instantaneous spoken thought around the globe, so bringing the great cities of the world into business and social unity ; inventions and discoveries which have wrested from nature the secret of her power, utilising it for the service of man, yet all these do not relieve him from physical suffering. But the discovery and application of anesthetics have conferred a blessing on our race no language can exaggerate. Imagine for a moment the carnage of a great battle in the wars of Napoleon, when the pain and anguish of those torn by shot and shell under the operations of the most skilful surgeons made the tens of thousands of battle-victims long for death more than for life; and then contrast that condition with the hospital service after one of the great battles of our late war, when by the temporary suspension of all sensibility following the application of anesthetics the most difficult operations of the surgeons are made painless, and the wounded soldier awakes to hope and gratitude. And what a boon the discovery brought to maternity, the greatest, perhaps, conferred since the first mother looked upon her first-born. The discovery has revolutionised surgery ; if it has not restored man to Paradise, it has delivered him from part of the primal curse.

Some years ago, wandering in the new public grounds of the City of Boston, I came upon a monument of granite and marble, surmounted by two figures representing the application of an anesthetic to a patient. Each side of the monument bore an inscription, all of kindred tenure. Two of them indicated the purpose of the monument, one in these words : “ In gratitude for the relief of human suffering by the inhaling of ether, a citizen of Boston has erected this monument.” The other seems to recognise the fulfillment on earth of the heavenly vision of St. John as recorded in the Revelations : “ Neither shall there be any more

pain." The name of the grateful donor, now known to be Thomas Lee, is too modestly withheld ; it does not appear on the monument. At that time, 1868, there were two rival claimants to the honor of the discovery. I think we may here and in this presence take note of the fact that our century has emancipated—it is a century of emancipation—the medical profession in all its departments from imperfect systems which the ages had made venerable, but which courageous science has overleaped. To learn the causes of disease and to master it, to learn the laws of life and recast systems of the healing art in conformity to the law, is a passion of the best minds of the profession as intense as that which in other realms of science inspires the great discoverers and inventors. Is Edison greater in his sphere than was Pasteur in his ? Napoleon drained two generations of Frenchmen of their best life-blood that he might float his ambition on a crimson sea. The fruitage of Pasteur's professional life is a blessing to the world which enrolls him with the greatest benefactors of the human race.

If it be desirable to have a sound mind in a sound body and to prolong human life so long as such conditions exist, and, I confess, without such conditions I think long life a questionable good ; then, I think the studies of the medical profession in all its departments, to perfect the healing art, of more value to the human race than all the abstract speculations of philosophers and metaphysicians, which have no bearing on human well-being or on the practical relations of life. We cannot live on mental gymnastics. Tennyson is right—

'Tis life whereof our nerves are scant,
O life, not death, for which we pant,
More life, and fuller that I want.

The Medical Department of the University of Buffalo honors itself in celebrating the semi-centennial of the first and successful application of anesthetics in surgery. It recognises the fact that the science of the profession is an ever-developing science and that its evolution follows in the line of sound education in its principles, and the rejection of every form of empiricism. The university is in sympathy with the demands of the state for advanced education and of increased terms of study before medical students shall take upon themselves the active responsibilities of the profession. The State Board of Regents is right in maintaining high standards in all the institutions under its charge. When asking



HON. JAMES O. PUTNAM,
Chancellor University of Buffalo.

for skill we will not accept quackery or ignorance. We would not die, even in a dentist's chair, from unskilful application of anesthetics, though we might, like fabled swans, die singing.

The medical department of the university has been singularly fortunate in its chair of surgery. When the department was organized in 1846, the late Dr. Hamilton, whose professional eminence is a matter of just pride, was called to that chair. After his acceptance of the same chair in New York College, he was succeeded by one whose professional life is one of proud distinction. He has been well styled by his brethren their Nestor. If now, in his advanced years, Prof. Moore be like Mt. Blanc, snow-capped, he is like Mt. Blanc in another respect, the highest peak in his professional range. He had a colleague in the late Dr. Miner, of cherished memory. After twenty-five years of service in our medical college he was succeeded by the present occupant of the chair, whose profession brings him daily into relations with anesthetics and whose skill in his specialty ranks him with the most eminent of the surgeons of his time. From both these gentlemen we shall hear the history of the discovery of anesthetics.

DR. WILLIAM T. G. MORTON IN BUFFALO.

IN CONNECTION with the semi-centennial anniversary of anesthesia and the proceedings at Buffalo University Medical College, we extract the following from the records of

THE MEDICAL SOCIETY OF THE COUNTY OF ERIE.

Special Meeting, held Saturday, February 4, 1865.

A special meeting of the Medical Society of the County of Erie was held at their new rooms, in the Young Men's Association building, Saturday, February 4, 1865, at 8 o'clock p. m., for the purpose of hearing some remarks by Dr. William T. G. Morton, on The origin and use of practical anesthesia. The president, Dr. C. C. F. Gay, introduced Dr. Morton to the society, who proceeded to give a detailed account of the discovery by himself of anesthesia and its use in hospitals and on the battlefield.

Upon the conclusion of his remarks, Dr. ROCHESTER addressed the meeting, saying that a testimonial should be given to Dr.

Morton for his discovery, and moved a committee of eight be appointed to take action in the matter, which was adopted.

The PRESIDENT appointed as such committee, Drs. Rochester, C. W. Harvey, Samo, Lothrop, Barnes, C. C. F. Gay, Burwell and Miner.

Upon motion, the society adjourned till Monday, at 8 o'clock P. M., for the further consideration of the subject.

ADJOURNED MEETING, MONDAY, FEBRUARY 6, 1865.

Dr. C. C. F. GAY, president, in the chair.

The committee appointed at the meeting Saturday evening made a report, offering the following resolutions, which were adopted :

The committee appointed to express in a proper manner the thanks of this society to Dr. William T. G. Morton for his full and satisfactory account of his discovery of the anesthetic properties of sulphuric ether and his statement of the difficulties attending its introduction and use, submits the following report :

It appears beyond a doubt to medical men that Dr. Morton is the discoverer of the anesthetic powers of sulphuric ether, and that he was the first to clearly demonstrate that the condition of anesthesia, a state in which there is entire insensibility to pain, could be safely and certainly produced. He is therefore the practical originator of anesthetic inhalation.

Moreover, we are indebted very greatly, if not wholly, to his personal efforts, not only for its discovery, but for its adoption and use ; for this precious gift to humanity met at first with incredulity, if not positive hostility, and no ordinary courage and energy were requisite to establish the use of an agent which has been of such incalculable benefit to humanity in preventing and suspending pain. And we may assume that its benefits are not confined to its being the most certain and safe means of alleviating pain yet made use of in surgical practice, for its very power to prevent pain has given increased success to severe operations in surgery.

It further appears that for this important discovery, taking rank among the most important gifts to humanity, analogous to that of the great Jenner, Dr. Morton has not only not received adequate compensation, but has, in his efforts to secure its adoption, made great pecuniary sacrifices, for which he has repeatedly sought, but has yet failed to receive, a natural reward—such a reward as has been in discoveries of like nature, but of less importance, given by European governments.

The great value of the anesthetic inhalation is now fully established. Thousands of painless operations have fully demonstrated its benefits

and its safety. It has robbed surgery of its terrors. A great amount of human suffering, which once seemed inevitable, is by its powers wholly prevented. As a profession we daily witness its power and its benefits. We are, therefore, daily reminded of him who first demonstrated the safety and practicability of anesthetic inhalation and established its practice. To him we owe this great benefit, and to him is due the warmest gratitude of mankind. We therefore recommend the passage of the following resolutions:

Resolved, That the thanks of the society are hereby tendered to Dr. Morton for his clear and satisfactory statement, in which he has placed beyond doubt his claims as the originator and introducer of anesthetic inhalation.

Resolved, That inasmuch as he has failed of national recompense, we commend this appeal to the public to compensate him for the sacrifices he has made in establishing his claims, and especially we urge upon this community to contribute to the testimonial, in order that a most beneficent discovery may not become a pecuniary loss to the discoverer.

The committee was empowered to sign a call inviting the citizens of Buffalo to hear Dr. Morton give an account of the discovery and introduction of ether and chloroform and their use in hospital and army practice as witnessed by himself.

On motion the society adjourned.

LEON F. HARVEY, *Secretary*.

The foregoing is deemed of sufficient interest to warrant its publication at this time. The proceedings of these meetings have never before been printed and ought to be preserved as a part of—indeed, an interesting chapter in—the history of anesthesia.

ETHER ANESTHESIA, ITS HISTORY AND SEMI-CENTENNIAL ANNIVERSARY.

By NATHAN JACOBSON, M. D., Syracuse, N. Y.,

Professor of clinical surgery, College of Medicine, Syracuse University; surgeon to St. Joseph's Hospital.

THE desirability of performing operations without pain was ever appreciated. As long ago as the I. Century of the Christian era, Herodotus wrote that the Scythians would intoxicate themselves by inhaling the vapor of hemp-seed, while Dioscorides and Pliny mentioned the anesthetic properties of mandrágora.

1. Read at the annual meeting of the Medical Association of Central New York, at Rochester, October 20, 1896.

In mediæval times, the practice of narcotising patients with opium and hyoscyamus before operation, was in vogue, and it was thought necessary to reëwaken them by the administration of vinegar and fennel. It can be readily understood, however, that all of these attempts, though landable, failed to accomplish their purpose.

At the beginning of the present century, Sir Humphrey Davy threw out the suggestion that "nitrous oxide may probably be used with advantage in surgical operations." His suggestion, however, failed of application, until a dentist, Dr. Horace Wells, of Hartford, Conn., witnessed the administration of the gas in the course of a popular lecture, given December 10, 1844, by Dr. G. Q. Colton, and was convinced of its practicability. Requesting Dr. Colton to administer the gas to him, he asked Dr. Riggs, a brother dentist, to extract a tooth while he might be unconscious. Recovering consciousness, Wells exclaimed: "A new era in tooth-pulling. It did not hurt me so much as the prick of a pin. It is the greatest discovery ever made." He continued its use in dentistry, as upwards of forty depositions of the best citizens of Hartford prove.

Feeling that the gas had a wider range than in the extraction of teeth, he visited Boston, where he had formerly practised dentistry, to induce the medical profession to use it in surgical operations. In January, 1845, a public attempt was made to render unconscious a patient, about to be operated upon by Dr. Warren, before the class at the Harvard Medical School. The experiment failed, as the unconsciousness was either too transient or not sufficiently profound.

The manufacture of ether, by the action of sulphuric acid upon alcohol, was described as early as the XIII. Century. A limited knowledge of the stimulating and benumbing qualities of the drug existed some time before its great usefulness was discovered, and these were even described in Pereira's *Materia Medica* in 1839. There are those among us who personally recall the "ether frolics" indulged in during the first half of the present century. It seems to have been a frequent practice at social gatherings, and particularly among college students, to inhale ether and enjoy the sport its intoxication would produce. I have been told by one who participated in these "frolics" that each of the participants would return home from these gatherings covered with bruises, whose origin he never could explain.

It was at the time that Dr. Wells was investigating the merits of nitrous oxide gas that Dr. E. E. Marcy, of Hartford, related to him that while a student at Amherst College he and his fellow-students had often inhaled both nitrous oxide and sulphuric ether, and, as far as he could determine, they seemed to act alike. Thus came the suggestion to use sulphuric ether to secure unconsciousness for operations.

The experiments of Drs. Marcy and Wells in this direction were evidently not satisfactory, for although the former succeeded in removing a small wen from a sailor without pain, still no attempt was made to extend its application or to induce the profession to adopt it.

At even an earlier date than this, likewise emanating from the use of ether at social gatherings for the purpose of provoking merriment, an incident occurred which was not made public until some fifteen years after the date of its occurrence. In the fall of 1839, at the home of a Mr. Ware, situated five miles from Athens, Ga., a colored boy was dragged into the house, where there had been a quilting party, and forcibly made to inhale ether. After a long struggle he became quiet, and even breathed stertorously. Fearful that they had committed murder, the young men who had administered the ether called a physician. The colored boy remained unconscious for an hour.

Dr. C. W. Long, of Jackson, Jefferson county, Ga., cognisant of the experiences of the "ether gatherings," made the first premeditated attempt to produce unconsciousness for the purpose of a surgical operation, on March 30, 1842, and removed a small glandular tumor from the neck of Mr. J. M. Venable. It was not until December, 1849, however, long after ether was being used by the profession generally, that Dr. Long saw fit to publish, in the *Southern Medical and Surgical Journal*, the result of his experience.

While Dr. Wells, to whose work with nitrous oxide reference has been made, was engaged in the practice of dentistry in the city of Boston, he had associated with him as a partner Dr. William T. G. Morton. The success of Dr. Wells with nitrous oxide induced Dr. Morton to attempt its use. At this time Dr. Morton, though a practising dentist, was engaged in the study of medicine. Not being himself competent to manufacture the gas, he applied to Dr. Jackson, a scientist of some repute, who then had a laboratory for analytical chemistry. Dr. Jackson asked him why he did not

attempt to accomplish his purpose with sulphuric ether. Morton, acting upon the suggestion without further delay, improved the first opportunity, and on September 30, 1846, placed under the influence of ether a man by the name of Eben Frost, who presented himself at his office for the purpose of having a tooth extracted.

Prior to this time he had experimented with the drug upon his dog and other animals. Thoroughly impressed with the importance of this discovery he placed the matter before the surgeons of the Massachusetts General Hospital, asking permission to publicly demonstrate its serviceability in the performance of serious surgical operations.

On October 16, 1846, the first deliberate attempt in public at rendering unconscious a man about to be operated upon was made at the hospital. Perhaps the most vivid description of that, for surgery, epoch-making procedure is in the following words of Dr. Warren, the operating surgeon on that occasion :

The patient was arranged for the operation in a sitting posture and everything was made ready, but Dr. Morton did not appear for the lapse of half an hour. I was about to proceed when he entered hastily, excused himself for the delay, which had been occasioned by his modifying the apparatus for administration. The patient was then made to inhale a fluid from a tube connected with a glass globe. After four or five minutes he appeared to be asleep, and was thought by Dr. Morton to be in condition for operation. I made an incision between two and three inches long in the direction of the tumor, and to my great surprise, without any starting, crying out or other indication of pain. The fascia was then divided and the patient appeared wholly insensible. Then followed the insulation of the veins, during which he began to move his limbs, cry out and utter extraordinary expressions. These phenomena led to a doubt of the success of the application, and, in truth, I was not satisfied myself until I had, soon after the operation, and on various other occasions, asked the question whether he suffered pain. To this he always replied in the negative, adding, however, that he knew of the operation, and comparing the stroke of the knife to that of a blunt instrument passed roughly across his neck. Now that the effects of inhalation are better understood, this is placed in the class of imperfect etherisation.

It is of historical interest to note that at the "ether frolics" a sponge was used for the administration of the drug. The various appliances suggested for giving ether at operations were soon cast aside and again the sponge resorted to. In the Bigelow Operating

Amphitheater of the Massachusetts General Hospital, placed upon a glass saucer in one of the instrument cases, can be seen, still well preserved, the first sponge used for ether inhalation at operation.

A second application of ether was made on the following day, when Dr. Hayward removed a fatty tumor from the arm, the operation occupying about seven minutes, and the patient remaining entirely unconscious during its performance.

The surgeons refused, because of the concealment of the nature of the drug, to proceed further with its use. Dr. Morton proposed to patent the article and gave it the name of "letheon." With this in view he consulted R. E. Eddy, a lawyer. He learned from the attorney that inasmuch as Jackson had suggested the use of ether to him, a patent could be issued only to them jointly. The formal application read as follows :

STATE OF MASSACHUSETTS, }
COUNTY OF SUFFOLK. } ss.

On the 27th day of October, A. D. 1846, personally appeared before me Charles T. Jackson and William T. G. Morton, and made oath that they do verily believe themselves to be the original and first inventors of the improvement hereinbefore described, and that they do not know or believe the same to have ever before been known or used, and that they are citizens of the United States of America.

R. H. EDDY, J. P.

Finding that the surgeons were firm in their determination not to use "letheon" without receiving from him definite information as to its ingredients, Morton finally addressed a note to Dr. Warren, the surgeon-in-chief of the Massachusetts General Hospital, stating that it was merely sulphuric ether to which he had added certain volatile oils for the purpose of concealing its true nature. Its character known, it was again used November 7, 1846, for the amputation of a thigh. This operation is thus described by the operator, Dr. Hayward :

The ether was administered by Dr. Morton. In a little more than three minutes she was brought under the influence of it ; the limb was removed and all of the vessels were tied but the last, which was the sixth, before she gave any indication of consciousness or suffering. She then groaned and cried out painfully. She afterwards said that she was wholly unconscious and insensible up to that time and seemed to be much surprised when told that her limb was off. She recovered rapidly, suffering less than patients usually do after amputation of the

thigh, regained flesh and strength and was discharged well on the 22d of December.

Despite the fact that Dr. C. T. Jackson laid claim to being the original discoverer of the anesthetic qualities of ether, it was not until the 21st of November, 1846, that he witnessed for the first time an operation done under its influence. This was at the Massachusetts General Hospital, when a tumor was removed from the thigh.

Dr. Henry J. Bigelow, one of the surgeons of the hospital, who had interested himself much in this work, and who had at this time become so firmly convinced of the merits and safety of ether that he permitted his daughter to be etherised that she might have a tooth extracted painlessly, made, on the 3d of November, 1846, the first communication on the subject of ether anesthesia to the American Academy of Arts and Sciences. Six days later he presented a more extended paper to the Boston Medical Improvement Society. This paper was published in the *Boston Medical and Surgical Journal*, November 18, 1846, and was the first announcement to the medical world of this important contribution to surgical science.

Within six weeks Europe was aroused and the value of ether anesthesia was attested by the surgeons of London, of whom Liston was the first to resort to its use. January 2, 1847, there appeared a letter addressed by him to a Dr. Boott, in which he says :

I tried ether inhalation today in a case of amputation of the thigh, and in another requiring an evulsion of both sides of the great toe-nail, one of the most painful operations in surgery, and with most perfect and satisfactory results. It is a very great matter to be able to thus destroy sensibility to such an extent and without apparently any bad result. It is a fine thing for operating surgeons, and I thank you most sincerely for the early information you were so kind to give me of it.

A little later its use was general in the Parisian hospitals. On the other hand, its adoption in this country was much more tardy. Several weeks elapsed after the appearance of Bigelow's paper before any notice whatsoever was taken of it by the medical press of the United States. Then the expressions were those of doubt and incredulity. The first record I find of an operation performed in New York City was February 13, 1847, when a thigh was amputated for chronic synovitis. In Philadelphia the first operation seems to have been done at the Jefferson Medical College,

July 19, 1847, for the resection of a conical stump. These dates are taken from a table, which accompanies the report of the committee on surgery of the American Medical Association, and appear in Volume I. of the transactions of that society.

The delay in the acceptance of ether for anesthetic purposes can be readily understood by you, cognisant, as you are, of the strong opposition the medical fraternity has always manifested to patented articles. The patent applied for was granted on the ground that although the drug had long been known, and that there was a general knowledge of its character, no one had ever attempted, as far as was then known, to apply it for the purpose of producing insensibility to pain in surgical operations. It was at that time customary to sell office rights, permitting the use of patented articles, and Morton proceeded at once to restrict the use of ether for surgical purposes to those who would purchase of him the privilege. Litigation followed, and the government ultimately failed to recognise the validity of the patent. In the meantime, however, the most bitter opposition had been awakened.

Some of the medical journals had seen fit to characterise in the strongest terms the course of the Boston surgeons in consenting to bolster up a patented article. As voicing the sentiment of many of the profession, and in explanation of the slow progress made in establishing ether anesthesia in the United States, I would refer to an editorial, from which I make a few extracts, which appeared in the issue of the *Medical Examiner* for December, 1846. Its editor, Robert M. Huston, was at that time one of the professors in the Jefferson Medical College. Amongst other things he says :

Looking upon this as nothing more nor less than a new scheme to tax the pockets of the enlightened public, we should not consider it entitled to the least notice, but that we perceive by the *Boston Medical and Surgical Journal*, that prominent members of the profession in that city have been caught in its meshes. . . .

Then follows a statement of the reasons given by the Boston surgeons for using ether and a description of the manner of its administration. When the editor again proceeds, it is after this fashion :

We are persuaded that the surgeons of Philadelphia will not be seduced from the high professional path of duty into the quagmire of quackery by this will-o'-the-wisp, and if any of our respectable dentists should be tempted to try this new patent medicine, we advise them to consider how great must be the influence of an agent on the nervous system to render a person unconscious to pain—the danger there must

necessarily be from such overpowering medication, and that if a fatal result should happen to one of their patients, what would be the effect upon their conscience, their reputation and business, and how the practice would be likely to be viewed by a Philadelphia court and jury?

We cannot close these remarks without again expressing our deep mortification and regret that the eminent men who have so long adorned the profession in Boston, should have consented for a moment to set so bad an example to their younger brethren as we conceive them to have done in this instance. If such things are to be sanctioned by the profession, there is little need of reform conventions or any other efforts to elevate the professional character. Physicians and quacks will soon constitute one fraternity.

But the continued favorable reports that appeared both abroad and in the Boston journal helped enormously to displace the prejudice that had been created. Prof. Simpson, who the next year introduced chloroform as an anesthetic in obstetric cases, was able at the end of this year to state that 300 important surgical operations had been performed under ether, the reports of which he had collected from the different hospitals in England, Ireland and France, and that the death-rate had been smaller than before the introduction of anesthesia.

Three and one-half years after the introduction of ether, Dr. Warren reported that there had been over 1,000 etherisations in the Massachusetts General Hospital, and many more in private practice in the City of Boston, without a single death, and that no one had seen fit to relinquish it, while the circle of those using it was constantly increasing.

The introduction of chloroform by Simpson aided largely in favorably establishing anesthesia abroad. It is unnecessary to raise the question at this time as to whether chloroform was an American discovery by Dr. Samuel Guthrie, of Sackett's Harbor, N. Y., or whether Professor David Waldie, Master of Apothecaries Hall, Edinburgh, had suggested the extraction of chloroform from chloric ether to Simpson. Nobody will attempt to dim the luster which illumines the name of Simpson nor in the least detract from the glory of his great discovery.

It is most unfortunate, on the other hand, that the desire for personal gain and fame should have created what might properly be called an internecine war amongst those so closely associated with the discovery of anesthesia in America. Wells, with whom it will be remembered Morton was associated in the practice of dentistry, went abroad for the purpose of establishing his claim to

the discovery of anesthesia by the inhalation of vapors. He failed to make the impression that he had hoped. Upon his return to this country, he found that his former partner and Dr. Jackson were being recognised as the discoverers of a far more successful method, and deep mental gloom fell upon him. The victim of melancholia, in a mad fit of frenzy, he was arrested in New York City for having thrown vitriol upon some ladies, and while insane committed suicide in one of the prisons of New York City.

Jackson, who did not at first appear as the discoverer of ether anesthesia, after its success was assured in this country, despite his lack of active coöperation in its introduction, forwarded to the Academy of Science in Paris, to be placed in their archives, two sealed communications, which, some weeks after, were opened at his request by his friend, M. Elie de Beaumont, at a meeting of that society, January 18, 1847. In these communications Jackson formally announced to the French Academy that he had discovered the value of the administration of ether vapor in surgical operations and that all that Morton had done had been under his direction. The great secrecy which had been maintained, Velpeau remarked in discussing these communications, was without reason, as he had received personal letters from Dr. Warren, of Boston, communicating the same information a month prior.

Malgaigne had succeeded better than any other surgeon at that time in Paris with ether. At the same meeting other surgeons recorded their experiences, and while a conservative tone marked the proceedings of the meeting, it was evident that ether had come to stay in France, although, commenting upon it, one of the editors of the day used this expression: "Before twelve months are completed, many shall have recovered from this etherising revery and the subject will then be considered in its true light and on its actual merits."

The struggle between Morton and Jackson as to who deserved the more credit grew with each year more fierce, and had upon each of these men a most depressing influence. The matter was carried to congress, and that body was memorialised to adequately recognise the services rendered by Morton. The committee to whom the matter was entrusted finally reported that Dr. Horace Wells did not make any discovery as to the value of the vapor of sulphuric ether, which he considered reliable; that Dr. Jackson did not appear at any time to have discovered any use of ether which had not appeared in print some years before in Great

Britain; that Dr. Morton, in 1846, did discover that ether would prevent pain in surgical operations; that it might be given for that purpose without danger to life and demonstrated its applicability and importance in capital operations; that Dr. Jackson had the belief that ether would accomplish this, and had advised various persons to attempt its application, but that neither they nor he took any steps to accomplish this end, and not until Dr. Morton's experiments was this made a certainty. Despite this report our government made no substantial recognition of Morton's services. England gave Sir William Jenner the sum of \$225,000 in recognition of the discovery of vaccination. But a year or two ago France decorated and presented a large sum to Roux for his work with diphtheria antitoxin, although no pretense can be made that he was even its discoverer.

Disheartened and impoverished, Morton went from city to city asking and accepting such gifts as the medical profession and the public generally might see fit to give him. The Massachusetts medical profession, however, expressed its appreciation by presenting him with a small silver casket containing \$1,000. Both Morton and Jackson, however, received recognition from foreign societies, and had bestowed upon them various decorations, and each received from the French Academy 2,500 francs. The city of Hartford, loyal to her citizen, erected a monument which presents a portrait statue of Dr. Wells, and bears the inscription, "Horace Wells, who discovered anesthesia, November, 1844."

In the Public Garden of the City of Boston is a stately monument, dedicated in June, 1868. It is of granite and red marble, and is surmounted by a group illustrating the story of the Good Samaritan. On the face of the pedestal, beneath, are the words, "To commemorate the discovery that the inhaling of ether causes insensibility to pain. First proved to the world in Boston, October 16, 1846." On the reverse side appear the words, "The gift of Thomas Lee," and the inscription, "In gratitude for the relief of human suffering, a citizen of Boston had erected this monument, A. D. 1867." The name of neither Morton or Jackson is inscribed hereon. The word "anesthesia" is said to be the coining of Oliver Wendell Holmes, and our witty poet doctor, when asked whose name should be placed upon this monument, Morton or Jackson, said, "Oh, call it either," and so this is known as the "ether monument." The new City Library of Boston has surrounding its upper story a series of memorial tablets bearing the

names of perhaps 500 men, famous in history, literature and science, and upon one of them we find inscribed this group, "Astley, Cooper, Warren, Jackson, Morton, Lister."

The failure to recognise definitely either Morton or Jackson as the discoverer of anesthesia, preyed upon the minds of both of these men. Jackson became mentally unbalanced and died in an insane asylum, at Summerville, Mass., August 20, 1880. In the September, 1896, number of *McClure's Magazine*, the wife of Dr. Morton has presented in a beautiful way, which speaks for her devotion to her deceased husband, the story of his struggles, and pictures most feelingly the end of her husband. He, with nerves shattered, really demented, sprang from his carriage as they were driving through the upper end of Central Park, soon became unconscious, and died before he could reach St. Luke's hospital, whither an effort was made to take him.

In Mt. Auburn cemetery, where are buried Holmes, Longfellow, Lowell, Agassiz, Sumner and a host of eminent men, I stood recently beside a grass plot some eighteen feet square, enclosed in a rounded stone coping, where the remains of Dr. Morton rest. Upon the four sides of the base of a modest marble monument these inscriptions can be found: "Erected by the citizens of Boston." "William T. G. Morton, inventor and revealer of anesthetic inhalation, born August 19, 1819, died July 15, 1868." "Before whom in all time surgery was agony." "By whom pain in surgery was averted and annulled." "Since whom science has control of pain."

A half century has passed since Morton established the value of the anesthetic inhalation of ether. The history of surgery during this period marks an era of progress unequaled by all the ages that preceded it. Reviewing the surgical operations performed during the time which antedated the introduction of ether, it is, indeed, a matter of great surprise to find that capital operations of the most serious character on all the vital organs of the body have been successfully performed.

The surgeon of the pre-anesthetic era must have been a man possessing qualities today no longer considered necessary. He must have been a man of great decision, unerring celerity, bold and fearless. He must have possessed manual dexterity, which challenged the admiration of the medical observer. He must have been firm, even to a degree of coldness. True, operations could not have been performed with the same deliberation, nor could the

technique have been as complicated nor as carefully arranged in its details as today.

Under the influence of anesthesia the field of operation immediately widened. To the patient the operating room had been a chamber of horrors; the agony to be suffered must have instilled those requiring surgical attention with deep fear and deterred many from yielding to the demands of the surgeon, even where comfort could be secured or life saved. Robbed of its terror the patient submitted to operation, and at once not only were the established operations more frequently performed, but new surgical procedures undertaken. Look where we will, we find this statement amply verified.

Bone surgery received new impulse. Ununited fractures were subjected to drilling; excisions of various bones were performed. Resection of the ribs to give exit to pus collections in the chest, and excision of the hip and other joints were successfully performed for the first time. Vessels, which never before had been, were now ligated. As operations could be undertaken with deliberation, careful dissections were made, and time was no longer an element in their performance. Anesthesia rendering the patient absolutely submissive, the surgeon could now proceed without fear, as Mott described, "that the writhings of the sufferer should convert him who sought to be the deliverer into the executioner." The innominate, the vertebral, the primitive and two internal carotid simultaneously, the subclavian in its first portion, the primitive iliac, the two internal iliacs simultaneously, were all ligated for the first time successfully after the introduction of ether.

What will we say of the great cavities of the body? Anesthesia made the application of antisepsis and asepsis possible. Through the aid of these two great benefactions, the territory of the surgeon recognises no limit. Even as early as 1855 the lateral ventricle was opened for the purpose of evacuating pus, while now the invasion of the skull has been undertaken so frequently and so extensively that surgical art has been applied to almost every known pathologic condition occurring in the head. Neither has there been any limit to the invasion of the abdominal cavity, the mere opening of which has come to be regarded as an innocent procedure. From being undertaken only occasionally and in extreme cases, laparotomy, attended with a death-rate of almost 50 per cent., is performed for every possible pathologic condition

encountered in the abdomen, and except in conditions of great gravity, without fear as to the outcome.

Intestinal surgery was substantially unknown fifty years ago. The treatment of the septic conditions within the abdomen is entirely a modern creation. The gall-bladder, the liver, the kidneys, the spleen, the pancreas, have all been laid under the surgeon's knife.

Since gastrotomy was first performed, in 1849, the stomach has been regarded as a legitimate field for surgical invasion, and despite the fact that, in the main, the surgery of this organ, especially for the relief of malignant disease, has not been eminently successful, without doubt, much misery has been relieved and many times death averted. The urinary bladder has been treated for its various surgical conditions by the operator with success almost unparalleled. Since Bigelow transformed, through the agency of the anesthetic, at whose birth he was present, the operation of lithotrity into that of litholopaxy, the crushing of stone has indeed been quite a different and much more successful operation. Plastic and conservative surgery are new arts.

But there is no occasion for me to weary you by presenting a further list of operative procedures made possible by anesthesia. This is not a theme new to you. Not alone, however, were new operations made possible; the results were improved, both because patients submitted to operation earlier and they could be better performed. More than this, it was by no means unheard of that patients died because of the tremendous shock attending painful operations, when the suffering was unrelieved.

A fortunate occurrence attended the first proposed attempt to use chloroform. Simpson had arranged to administer it in a surgical operation. Being deterred, it had to proceed without the anesthetic. The patient died upon the table. It would have been a sad blow for chloroform had such a result attended its first exhibition.

The average mortality in Guy's Hospital in strangulated hernia up to 1842 was 50 to 61 per cent., and at Wurzburg, up to 1846, 48 to 52 per cent. Of 275 cases of amputation of the arm, collected in 1853, 103 had died. In amputation of the lower extremities, performed in Great Britain in civil practice between 1834 and 1845, there was one death in three, while in America, one in four. These figures might be multiplied, but their mere

mention is sufficient to indicate what a great change has been wrought since the introduction of ether.

Nor is this all. In the recognition and reduction of fractures and dislocations, ether has proven of lasting benefit. As opposed to chloroform, the great value of ether stands out in the stimulation it produces, permitting long-continued surgical operations without marked depression. Anesthesia, furthermore, has assisted surgical diagnosis to a marked degree. Not only has it been possible to examine the most sensitive organs, to explore them, if necessary, with instruments, to relax muscular tension, to permit free palpation, but also, where necessary, exploratory operations can be undertaken.

Instead of stupefaction through narcotic drugs, or alcoholic intoxication, carried to partial anesthesia, instead of depending upon the celerity of the operator or section of the nerves, ether came at once to be recognised as an agent capable of securing freedom from pain and rendering the patient unconscious of the surgeon's attack. True, at first the most absurd claims were made and had to be disproven. Every unfortunate result attending an operation was attributed to its use. But so overwhelming was the evidence in favor of it, that in less than a year's time it was recognised as the greatest gift medicine had ever presented to mankind. As we look back over the glorious march surgery has made since its introduction, we cannot help but confirm the predictions made that anesthesia would be the greatest triumph of the century.

In the face of the opposition to etherisation, both on the part of the medical press and medical men of our country, growing out of the unfortunate manner proposed to secure its introduction into general use and against the selfish aims of its discoverers, in what bold relief do the eminent surgeons of the Massachusetts General Hospital stand out. Warren, Bigelow and Hayward speedily recognised the intrinsic worth of Morton's discovery. Convinced of the value of ether for the purposes claimed, they were ready to give it a trial without knowing its true character. But having recognised its value, for the benefit of science, as well as for the protection of mankind, they positively refused to further proceed with it until its true nature was revealed to them. When this was made known, without any delay whatsoever, they spread before the medical world their experience. To their enthusiastic support, in the face of the most bitter opposition, more than to

aught else, do we owe its introduction. Long before they had aroused the medical profession on this side of the Atlantic to a full appreciation of ether, the response came from abroad in words of loudest praise, from the surgeons of London and Paris.

And yet when we consider what a priceless boon anesthesia has proven, how full of pathos is the end of those most closely connected with its origin. Wells, Jackson and Morton, each anxious to be recognised as the author of this great blessing, seeking through it fame and fortune, not only failed to gain either, but steeped in melancholy, mental wrecks, passed out of the world almost unrecognised.

Surely so great an achievement is deserving of the everlasting gratitude of all mankind. No monument can be too grand for its commemoration, no recognition commensurate with its beneficence.

430 SOUTH SALINA STREET.

COLOBOMA OF THE IRIS.

BY RICHARD H. SATTERLEE, M. D.

MR. L. S., employed on a railway, was sent to me for examination. His vision in the left eye was $\frac{20}{30}$; vision in the right eye was $\frac{20}{70}$. By tilting his head way back and still looking in the same direction as before, his vision was $\frac{20}{30}$ in the right eye.

Examination of the right eye showed a small pupil at the margin of the iris directly below the regular pupil. This extra pupil was arch-shaped, its base being parallel with the lower margin of the cornea. The pupil was nearly two millimeters in diameter and contracted under the influence of strong light the same as the larger pupil.

Vision with the lids wide open was only $\frac{20}{70}$, because the rays of light coming through the smaller pupil intercepted some of the rays coming through the normal pupil, resulting in a blurred image on the retina. Tilting the head far back covered the smaller pupil with the lower lid and allowed a normal condition of the eye to exist, and good vision resulted. A disc, with an aperture in the center about two millimeters in size, was placed directly in front of the eye. This cut off the rays of light from the smaller pupil. When this was placed before the eye it was not necessary to tilt the head back to get $\frac{20}{30}$ vision.

Attention is called to this test because in some cases of astigmatism the sight is much better if the head is tilted to one side or far back.

This man had never had the right eye injured, so we can eliminate traumatism. This condition is also mistaken for an

iridotomy, but no history was given of such an operation, nor had there ever been any indication for an artificial pupil.

This case was unique in some respects, as the following comparison will show :

Coloboma of the iris generally is :

Of hereditary transmission.

Associated with cleft palate or fissure of the eyelid.

When unilateral left eye affected.

Marked astigmatism.

Associated with congenital cataract.

Amblyopic or nearly so.

Fundus hazy and indistinct.

Involvement of retina and choroid.

Eye usually smaller than the other eye and imperfect in other respects.

This case :

No such history.

No such lesions.

Right eye affected.

Almost no astigmatism.

Lens in healthy condition.

Vision $\frac{20}{30}$.

Fundus healthy and media clear.

Retina and choroid not involved.

Same size as the other eye and no other defect.

The brief reference by most authorities to cases of this sort show that they are regarded merely as curiosities. The majority of eyes affected in this way have such poor sight that it is not worth while to operate. This case, on the contrary, would probably be improved by an operation. The test of tilting the head back and also the one of putting the perforated disc before the eye, both demonstrate that if the rays of light could be confined to the normal pupil the sight would be nearly perfect.

189 DELAWARE AVENUE.

Society Proceedings.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

Ninth Annual Meeting, held in Richmond, Va., September 22, 23 and 24, 1896.

THE association met at the Jefferson hotel, and was called to order, at 10 A. M., by the president, Dr. JOSEPH PRICE, of Philadelphia.

THE CAUSE OF PELVIC DISEASE.

Dr. JOHN M. DUFF, of Pittsburg, read the first paper, which was entitled Pelvic diseases and their principal causes: what should the laity be taught concerning them? He said that notwithstanding the fact that some of the prominent members of the medical profession had, in talks to the galleries, held the gynecologists up to ridicule and criticised them severely, he did not think any apology was due either the profession or the public for the character or results of the work of pelvic surgeons. Those members of the profession who had been devoting themselves to the care of diseases peculiar to women, had, in the face of revilings and professional and public prejudice, worked patiently and persistently, until they were now obtaining results of which they may well feel proud, results far beyond what the most sanguine expectations of the hardy pioneers of a quarter of a century ago led them to hope for. They were today charged with irrational radicalism, with an operative mania, which was gratified without a proper consideration of the ultimate benefit to the patient. Entreatingly they were urged to adopt more conservative measures, and thus stop the wholesale mutilation which was going on at present, which it is claimed is neither scientific nor humane. Sentiments such as these, endorsed by men of reputation, were eagerly taken up by the lay press as sensational news, and advertised by pretenders as an endorsement of their methods of practice; and thus the laity, in the opinion of Dr. Duff, is taught false notions regarding the nature of pelvic diseases and their treatment. That there is a great amount of mutilation connected with pelvic surgery, he would not deny; but that regular pelvic surgeons were guilty of reckless despoliation was not, he thought, susceptible of proof. Pelvic surgeons could scarcely be held accountable for the work of general practitioners; and for the work of ignorant egotists and pretenders, who with brazen effrontery undertake operations for the performance of which they are not qualified by character, experience or education, the pelvic surgeons disclaim all responsibility. During the period of the evolution and upbuilding of pelvic surgery, no doubt much of the work was crude, and perhaps too much was done by over-zealous operators. That at this day, through mistaken diagnosis, operations are sometimes needlessly performed no one would have the hardihood to deny; but that such cases are as frequent as some critics say they are, Dr. Duff could not believe. He said the true pelvic surgeon was governed by nobler purposes,

by more elevated aims. Conservatism in its true sense—the saving of life, relief from pain, the curing of his patient,—was his watch-word.

DECEPTIVE SIMILARITY OF SIGNS AND SYMPTOMS OF INTRA-ABDOMINAL DISEASE, WITH CASES.

Dr. WALTER B. DORSETT, of St. Louis, followed with a paper on this subject. In order to arrive at a conclusion and to formulate a diagnosis in a given case, be it medical or surgical, the practitioner must exercise care and judgment in the consideration of such signs and symptoms as are presented. Each should be weighed and mental annotations taken as to their value individually and collectively. Dr. Dorsett directed attention to the importance of the family and personal history and habits of patients, to the pulse and temperature, the knowledge to be gained by manual examination, the use of analgesics, and the like. Regarding the exploratory incision, it should not be regarded as an evidence of ignorance, but as a legitimate means of diagnosis, and the off-hand diagnostician or the surgeon who never makes mistakes should be looked upon with at least a grain of suspicion. To illustrate his statements he reported the following case :

Mrs. M., aged 28, married eight years, no pregnancies, was seen by Dr. Dorsett about a week after having recovered from an attack of malarial fever. Temperature, 99° F.; pulse, 90; tongue slightly coated, and a tendency toward diarrhea. Complained of general abdominal tenderness. Palpation of abdomen revealed a slightly more tender spot at McBurney's point; no swelling or tumefaction could be felt. A vaginal examination revealed a retroversion with fixation; no tubal enlargement nor tenderness could be made out, and no vaginal discharge. Diagnosis: gastro-intestinal irritation, with chronic inflammation of pelvic contents. Diarrheal mixture was prescribed and patient was told that further attendance would probably not be necessary. Four days subsequently the temperature was 99.8° F.; pulse, 100. Abdominal palpation revealed a distinctly tender spot with some swelling at McBurney's point. Patient stated that she had eaten heartily of wien-erwurst the day before and had been awakened during the night by cramps at the navel. Bimanual examination was again resorted to, with negative results. Appendicitis was diagnosed at this visit, first stage. Drachm doses of salts were prescribed and patient was urged to go to the hospital, but refused. The next day she was found sitting in a rocking-chair, and aside from slight tenderness over abdomen was feeling quite comfortable. The salts had acted freely. Bimanual examination again gave negative results. Temperature,

99° F.; pulse, 100. Patient was ordered to bed and advised to keep quiet. At that time she was regarded as better, and thought to be out of danger, but the following day the pain became more severe, and the patient came to the hospital of her own accord. Upon examination the right iliac fossa was found to be exceedingly tender and fluctuating. Vaginal examination revealed nothing aside from what was found at the previous examination. Temperature, 103° F.; pulse, 130. Diagnosis: ruptured appendiceal abscess. She was anesthetised and placed upon the table, and a section made in the median line. The large sac was found on the right side filled with fluid blood and clots, and when washed out a rent of the posterior layer of the broad ligament was found, which communicated with another rent in the Fallopian tube. The appendix was perfectly healthy and was not disturbed. A thorough washing out of the sac was done, and ligation of the tube with a portion of the broad ligament; a glass drainage-tube was introduced. Notwithstanding the utmost care, the temperature remained high, the pulse became worse, the abdomen became distended, and the patient died on the third day. Post operative diagnosis: ruptured tubal pregnancy, without the usual symptoms. There were no history of shock, no cessation of menstruation nor any nervous symptoms of pregnancy, no passage of decidua, no vaginal discharge of any kind; but in their stead a good history and train of signs and symptoms of inflammatory disease of the appendix.

THE MOST POTENT CAUSES OF PELVIC INFLAMMATION.

Dr. RUFUS B. HALL, of Cincinnati, read this paper. He claimed that septic infection following labor or abortion, or gonorrheal infection, was the cause in almost every instance. He said there would always be some cases of septic infection following labor, which are in no wise due to infection from the attendant injury to small pelvic tumors, and the like. The retention of the products of conception in abortion is a very frequent cause. He advised complete emptying of the uterus at once after abortion. He believed the most frequent cause to be gonorrheal infection conveyed to the woman from a latent gonorrhea of her husband. The more he saw of the ravages of gonorrhea, the more he was convinced of the fact that physicians are derelict in their duty to their patients in the dissemination of knowledge upon this subject. The teaching of a few years ago that gonorrhea in the male could be easily and speedily cured by a little balsam of copaiba or oil of sandal wood, with mild astringent injections, and that the patient was well as soon as the purulent discharge ceased, is false doctrine and must be corrected. This must be done by the family physician. Dr. Hall said that on many occasions he had been compelled

to remove suppurating tubes and ovaries from women who had contracted the disease from husbands who believed themselves well when married. He had no hesitation in saying that gonorrhea is more destructive to women than syphilis, and believed it is the duty of every physician to impress upon the male patient the fact that he is not well as soon as the urethral discharge disappears. He was a firm advocate of legislation upon this subject, believing that every man should have a certificate from the health officer of freedom from syphilis and gonorrhea before he could obtain a marriage license.

Dr. J. HENRY CARSTENS, of Detroit, in discussing Dr. Dorsett's paper, said that the difficulty attending diagnosis in some cases was exceedingly great. The gynecologist should exhaust his diagnostic resources before resorting to abdominal section. The too frequent opening of the abdomen stimulated incompetents to do likewise, and as a consequence results were disastrous, eventually reacting on gynecologists.

Dr. W. E. B. DAVIS, of Birmingham, Ala., did not believe that gonorrhea played so important a part in the production of pelvic inflammation as had been asserted. One's conception of causes of pelvic trouble depends largely upon the class of patients one has. The cases met with in dispensary practice are different from those encountered in private practice. He believed that fully 50 per cent. of the cases of pelvic inflammation are due to puerperal infection, either at the time of delivery at term or of premature delivery. As to tuberculous trouble, more importance is being attached to it as a cause of pelvic inflammation than it deserves. Those who did considerable operative work knew that only a small percentage of cases have their origin in tuberculosis.

Dr. JAMES McFADDEN GASTON, of Atlanta, called attention to the prophylactic management of cases of pregnancy prior to the period of confinement. Extreme hygienic precautions might warrant in some instances the use of antiseptic douches prior to labor, but there was a great tendency on the part of some members of the profession to resort to measures which are regarded as precautionary, and to order douches in advance of confinement. He believed that this was altogether out of place, for when there is a normal condition of things nature should be allowed to take its course.

Dr. ERNEST S. LEWIS, of New Orleans, cited a case illustrating the errors that sometimes arise in the diagnosis of abdominal

tumors. He operated on a patient last winter for what he supposed at the time was a small ovarian tumor, but after the abdomen was opened it turned out to be a retroverted gravid uterus.

TUBO-OVARIAN CYSTS.

Dr. ALBERT GOLDSPOHN, of Chicago, read a paper on this subject. By tubo-ovarian cyst is meant a nonpurulent sac whose walls are composed in variable proportion, of the walls of the Fallopian tube and those of some cystic ovarian or parovarian formation, with the coalescence of two or more cavities—at least one from each—into one, by a free communication. The fluid contents of such a sac may be serous or hemorrhagic, or may partake, in variable degree, of the qualities and characteristics of the fluid contained in glandular ovarian cystomas. The fimbriae of the abdominal ostium of the tube may be distinguished or not upon the inner or on the outer side of the ovarian portion of the sac, or they may have coalesced with other structures to form some portion of the walls of the united sac. The ovarian element in this formation can have originated from a hydropic Graafian follicle, a cystic corpus luteum, from the primordial glandular ducts of Pflueger in the ovary, or from the parovarian. In order to exclude a large number of ordinary tubo-ovarian conglomerates, we need to recognise the following minimum requirements in distinguishing a tubo-ovarian cyst: (1) The participation of the tube, which is easy enough from its position and connections. (2) To prove the participation of the ovary by demonstrating some ovarian tissues in the wall of the sac. (3) That their cavities are united by some opening through which the mucous membrane of the tube is continuous with the lining of the ovarian cyst or follicle. The following were the conclusions of the paper: (1) Tubo-ovarian cysts come to pass in consequence of a plastic inflammatory union between a Fallopian tube and the adjacent ovary, after either or both of these organs and the intervening peritoneum have experienced a nonpurulent pathological change of a cystic character, the septum intervening between the two lumina disappearing in consequence of pressure atrophy from the tension of liquid confined to one or both sides of it. (2) This union of a distended tube cavity may occur also with that of a parovarian cyst (v. Ott) or with that of a peritoneal pseudo-cyst (Zedel). (3) In those rare cases in which the fimbriae are really found floating in the interior of the main cyst cavity, we must assume either the congenital anomaly of an "ovarian tube,"

as was seen by Schneidemahl in a mare, as a *vitium prima formationis*, or that an ovarian cyst or follicle cyst ruptured, and the abdominal end of the tube dropped into the rent and was united to its edges by inflammatory action, thus making a joint cyst and tubal cavity.

MIXED TUMORS OF THE OVARY.

Dr. WALTER B. CHASE, of Brooklyn, followed with a paper with this title. Mixed tumors of the ovary have a peculiar interest, for the reason that, if small, they are often difficult of diagnosis. These tumors of the ovary may be made up of a variety of cysts, or may be a combination of cysts and solid growths. The etiology of tumors, as a whole, is a matter of great importance, both in the relation to diagnosis and treatment. The question of what constitutes a tumor might be considered with profit. Senn defines a tumor as "a localised increase of tissue proliferation of embryonic cells of congenital or post natal origin." An important fact concerning true tumors is that they never disappear except by removal or destruction. Benign tumors always remain local, while malignant ones are disseminated by migration or transportation of their peculiar cells, and they always originate as benign or malignant growths. If the tumor matrix is made up of embryonic cells of the lowest development, there is greater liability to malignant growth than if from tissues susceptible to the highest physiological type of development. Retention cysts of the ovary are not tumors in a technical sense, and they never attain large size. Large ovarian cysts are most often cystadenomas and are not developed from Graafian follicles, but arise from the embryonic structure. It would seem, then, that the genesis of simple and mixed tumors is divested of much that is misleading and contradictory and reduced to a rational basis. It also demonstrates with great clearness that tumors are not only of local origin, but at their inception are congenital.

MOVABLE KIDNEY: LOCAL AND REMOTE RESULTS.

Dr. A. H. CORDIER, of Kansas City, Mo., read a paper on this subject, in which he drew the following deductions: (1) A movable kidney often produces a dilatation of the stomach with all the accompanying symptoms of a disease of that organ. (2) It is a fruitful source of gall stones, because of the pedicle producing a partial obstruction of the common duct. (3) The bending of the ureter often gives rise to a hydronephrosis. This, in turn, is some-

times converted into a pyonephrosis. (4) It may produce death by a complete strangulation by a torsion of the vessels and ureter. (5) By dragging on the abdominal aorta and kinking the vena cava, a condition simulating an aneurism of these vessels may be produced. (6) Pain of a referred character to the region distribution of the spinal nerves is often induced by a movable kidney's disturbance of the abdominal brain. (7) A general nerve exhaustion (neurasthenia) is often induced by the interference of this condition with digestion, assimilation and elimination. (8) Nephrorrhaphy is a safe and effective surgical procedure. (9) All cases of movable kidney, if accompanied by symptoms pointing to the kidney as their source, should be operated on. (10) In summing up the local and remote results of this now often recognised condition, the author thinks the correctness of the deductions has been frequently demonstrated by the disappearance of each and every symptom after a restoration and retention of the kidney in its normal position. (11) Symptoms are not to be relied upon in making a diagnosis of movable kidney. The physical examination is the only trustworthy guide.

THE LIMITS OF NEPHRORRHAPHY

Was the subject of a paper by Dr. HUGH M. TAYLOR, of Richmond, Va. He conceded the frequency of nephroptosis. Since he had been systematically looking for movable kidney, he had found it so frequent in its occurrence that he no longer regarded the experience of Glénard, Lindner, Edebohl and Noble as unique. His opinion was equally fixed that only a small proportion of the cases met with give rise to symptoms of suffering, ill-health or death, and consequently a majority of cases do not call for nephrorrhaphy. He favored the classification of nephroptosis under three clinical heads: (1) Patients who have displaced kidney do not know it, and suffer no inconvenience whatever from it. This type he thinks represents by far the largest class. (2) Patients with displaced kidney, who may or may not know it, who suffer from gastro-enteric discomfort and perhaps a long train of vague neurotic disturbances. In this type he thinks we find the largest class calling for operative interference. (3) Patients with movable kidney who are subjects of occasional or frequent mild or severe attacks of renal crises. This last mentioned is, he thinks, the least frequent type met with, but the urgency of the symptoms more frequently demands operative interference. Nephrorrhaphy for the relief of gastro-enteric disorder is limited by our ability to tell

to what extent the disorder is due to renal ptosis *per se* or to enteroptosis, or to some one of the many well-known etiological factors of gastroenteric disorder. Nephrorrhaphy for the relief of the condition of Deitl's or renal crises must be limited by one's success in differentiating between this condition and that of gall-tract, appendicular and kidney colic due to nephrolithiasis. He accepted as logically sustained the conclusion that the Deitl's or renal crisis is due to a kink or twist of the ureter with retained urine in the ureter and pelvis of the kidney. Apart from the violent paroxysms of pain (the renal crisis), the tendency of ureteral twist and urinary obstruction to induce hydronephrosis and in exceptional instances pyonephrosis rendered operative interference more imperative in this class of cases. His protest was not against nephrorrhaphy, but against its abuse. He conceded the value of operative interference in many selected cases, but deprecated the tendency toward operative interference merely because the kidney is movable.

Dr. GEORGE BEN JOHNSTON, of Richmond, Va., said that some years ago his attention was called to the subject by encountering several cases of movable kidney that had been unobserved either by him or by the physician who preceded him in the treatment of these cases for obscure nervous and gastro-intestinal disturbances, and when he observed the similarity of symptoms in the first three cases which he saw he was obliged to associate those symptoms with the presence of movable kidney. He prevailed on these women to be operated upon for movable kidney and in all three cases the results were most gratifying.

Dr. L. H. DUNNING, of Indianapolis, was greatly interested in the subject, for the reason that about 1880 he resorted to operative procedures for the cure of floating kidney, and in connection with this work he sought to determine, if possible, some of the causes which led to movable kidney. He emphasised the importance of differentiating between floating and movable kidney, the former being always congenital, the latter acquired to a greater or less extent. He found by his investigations that the partially fixed condition of the kidney depended upon three or four causes, the two principal ones of which were its position behind the peritoneum and the fact that it had an envelope of cellulo-adipose tissue. A little further investigation showed that the perinephritic cellulo-adipose tissue was composed of two parts, one fixed, the other movable. The normal kidney had a range of motion of from one-half to three-quarters of an inch in its fatty envelope.

Dr. THOMAS B. EASTMAN, of Indianapolis, reported the case of a woman, twenty-five years of age, who came to him with the symptoms of appendicitis. She also had considerable albumin in the urine. Operation showed that the appendix was firmly adherent to the kidney. It required considerable force to liberate it. As soon as liberated the kidney bounded back into place as though it were rubber. The appendix was removed, the albumin in the urine ceased, and the woman made an uneventful recovery.

Dr. JAMES MACFADDEN GASTON, of Atlanta, directed attention to the possibility of movable kidney being mistaken for enlarged gall bladder. The gall bladder was capable of being pushed back into the lumbar region and carried around in front in just the same manner as a floating kidney. It behooved gynecologists to look into this phase of the matter.

Dr. W. E. B. DAVIS, of Birmingham, had seen a number of cases of movable kidney, and said that at the Charleston meeting of the Southern Surgical and Gynecological Association there was quite a difference of opinion as to the frequency of the condition. He believed that movable kidney was a condition which did not require in all cases operative interference. Of the number of cases he had seen he had only operated on a few.

Dr. I. S. STONE, of Washington, D. C., related the case of a woman who, after the operation of nephrorrhaphy had been performed, gained twenty-five pounds in flesh. In many instances this procedure brought color back to the cheeks of patients and made them feel well. He had never seen such gratifying results from any other operation in surgery, except, perhaps, the removal of an ovarian tumor. The patient made rapid improvement after the operation.

Dr. JOSEPH PRICE, of Philadelphia, said his experience was somewhat limited in operating for movable kidney. The improvement in the condition of patients so operated upon was rapid, but there was such a thing as operating too much upon cases of movable kidney.

Dr. J. HENRY CARSTENS, of Detroit, said the line should be drawn between movable and floating kidney. The trouble which arose from floating kidney consisted of a twisting of the ureter and consequent obstruction.

TREATMENT OF PERIUTERINE SEPTIC DISEASES.

Dr. W. E. B. DAVIS, of Birmingham, Ala., read a paper on this

subject. Only recently has the extremely radical procedure of hysterectomy been practised in this country for septic diseases of the internal genitals. A wave which had its origin in Paris at the hands of Péan, aided by Richelot, Segond, Jacobs and others, reached our shores three years ago and has found a considerable following among our leading operators. The claim is made that there is no use in leaving the uterus behind after the removal of the appendages. In every operation for septic diseases of the female generative organs which demands the removal of the tubes and ovaries, hysterectomy should also be performed, unless there are plain contraindications forbidding it. It should be the aim of the surgeon to preserve everything consistent with thorough surgical work, and not to sacrifice important organs because it can be done with only a small mortality. We are told that the uterus has no function after the removal of the appendages, but this has not been demonstrated; and, on the contrary, we know that the sexual life of the woman is very much better preserved by leaving the uterus, and that the mental effect is also much better. A slow convalescence, or even a second operation, is preferable to its removal, unless very much diseased. It is a reflection on the correctness of the reports by many most excellent surgeons of complete recoveries of such a large per cent. of the cases when the uterus was not removed, to accept the argument now being used in favor of hysterectomy in all these cases. As stated by Dr. Davis at the last meeting of the American Medical Association, he could not agree with Dr. Sutton and others that pus in the tubes was due to gonorrhea in 75 per cent. of cases. He thought that puerperal infection was the cause of more than 50 per cent. Tuberculous infection was rarely the cause, and was not so important as had been claimed. However, the importance attached to gonorrhea was against the argument for the removal of the uterus, as the infection from this source was not deep and could be removed with the curette. Because some patients were not completely cured by the removal of the appendages was no argument for hysterectomy in every case in which the bilateral operation was required; for nearly all these could be relieved by a thorough curettage. Some large uteri would require, in addition to this, a high amputation of the cervix, and only a small number would need a hysterectomy. Vaginal incision for the drainage of pus in the pelvis, not confined to the tubes, was a most valuable method of treatment in a well-recognised class of cases, and had been prac-

tised for a long time, with gratifying results. A large number of these cases required no further surgery. More recently large pus tubes and ovarian abscesses had been incised and drained through the vagina, with permanent recoveries in a good proportion of cases. The uterus should always be curetted at the same time. These were the very cases in which the vaginal operation and hysterectomy had been recommended so highly by the French surgeons. Yet a considerable percentage of these cases could be relieved by vaginal incision and drainage. The object of the surgeon should be, not so much to reduce still further the death-rate from the operation, but to relieve the subjects and preserve as far as possible organs which had so much to do with the woman's health and happiness.

HYSTERECTOMY IN THE PRESENCE OF ACTIVE INFLAMMATION.

Dr. L. H. DUNNING, of Indianapolis, followed with a paper upon Hysterectomy in inflammatory diseases of the pelvic organs. The author discussed only that form of inflammation of the pelvic organs and tissues denominated diffuse pelvic inflammation, and drew the following conclusions:

1. We recognise the utility of hysterectomy in a small percentage of cases of bilateral suppuration of the tubes and ovaries, in which the uterus is distinctly septic, and in cases of septic uteri which cannot be cured by other means after bilateral salpingo-oöphorectomy.

2. We oppose hysterectomy, as a rule, in inflammatory diseases of the pelvic tissues upon the following grounds—namely, (a) The uterus is the central organ of the reproductive system, and should not, except upon palpable and urgent cause, be extirpated; (b) it is only in rare cases that the uterus is so far diseased as to resist the curative effects of appropriate treatment; (c) the removal of the uterus profoundly affects the nervous system and emotional nature of young women deprived of this organ; (d) we oppose the removal of the uterus from anatomical reasons—namely, as a result, the vagina is shortened; the anatomical relations of the bladder, sigmoid and rectum are changed; the elasticity of the pelvic diaphragm is greatly diminished or entirely removed, the elastic tissue being largely replaced by sensitive scar tissues; (e) in married women it often disturbs the sexual relations of husband and wife, and is apt to induce mental depression; (f) vaginal hysterectomy compels the use of drainage, because of the necrosis of tissue and suppuration induced.

SHALL THE UTERUS BE LEFT IN SITU IN EXCISION OF THE ADNEXA ?

Dr. E. F. FISH, of Milwaukee, Wis., read a paper which was an argument in favor of leaving the uterus in situ, if sound, after excision of the appendages. It considered the pathological conditions requiring hysterectomy after salpingo-oöphorectomy, as well as the conditions which do not require it. The author argued against all operations which leave a degenerated uterus, such as Hegar's, Tait's, Martin's and Robinson's, except under extreme conditions, and concluded as follows: 1. Whenever it becomes necessary to excise the uterine adnexa, if the uterus is sound, leave it. 2. Whenever we excise the tubes and ovaries, and the uterus, though in a pathological condition, in our judgment will yield to treatment, leave it. 3. Whenever it is necessary to do an abdominal hyster-salpingo-oöphorectomy and the cervix is healthy, do a supravaginal amputation, as this leaves the vaginal vault intact. 4. Whenever it is necessary to do a supravaginal amputation, suspend the cervix to the stumps of the broad ligaments or anchor it to the abdominal wall, to prevent prolapsus vaginae. 5. Whenever it is necessary to do a general ablation, and the cervix uteri is unsound, take the entire organ, because of the danger of carcinoma. 6. Whenever a subserous or interstitial myoma can be removed without too great damage to the uterus, do a myomectomy and leave the organ. 7. Whenever we excise the appendages and leave the uterus, ventral fixation is not an unsurgical operative conclusion.

The author's reasons for leaving the uterus were that it helps to maintain the woman's sexual integrity; it relieves the patient of much mental strain, and is a prophylactic measure to neurasthenia, melancholia and insanity; it tends to maintain the family ties unstrained; it obviates the possibility of vaginal hernia, cystocele and proctocele and delays vaginal atrophy; and, finally, it holds up and prevents shortening of the vagina.

DYNAMIC ILEUS.

Dr. J. W. LONG, of Richmond, Va., contributed a paper with this title. Intestinal obstruction had been variously classified, but Dr. Long regarded the classification adopted by Murphy as the simplest and the most rational: 1. Adynamic ileus, always the result of intestinal paralysis, due to varying causes, may be clearly illustrated by such cases as those following injury to the spinal cord and paralysis due to peritonitis. 2. Dynamic ileus. This

variety formed the subject of the paper and was discussed in detail. 3. Mechanical ileus embraced such common lesions as strangulated hernia, intussusception, fecal impaction and the like. The speaker reported the following case :

Mrs. C., 21 years old, married three years, but never pregnant ; was rather below the medium size and height. In temperament she was of the spoiled child type, not hysterical but rebellious. It was with great difficulty that she could be induced to have any local treatment or even to take medicines. After admission to hospital her obstreperous disposition required all the tact and firmness of a sagacious nurse. Early in April of this year the patient had malaria, followed by delayed menstruation, pelvo-abdominal pain and obstinate constipation. The malaria and menstrual disturbance yielded promptly to treatment, but the abdominal pain continued, and gradually the ileus symptoms became more and more pronounced. After exhausting every other measure to move the bowels, the patient was put under the influence of chloroform and by means of a Ricketts tube a quantity of fecal matter was washed away. Notwithstanding there was no improvement, the nausea and vomiting recurred oftener and were most distressing, the pain and tenderness became worse, and a marked degree of tympany supervened. When she was brought to the hospital there had been no movement of the bowels for four weeks, excepting what was washed away with the colon tube while the patient was anesthetised. The history justified the diagnosis of intestinal obstruction, while the urgent symptoms demanded an immediate operation. The abdomen was opened by a median incision. No mechanical obstruction could be found, although a careful search was made along the whole length of the intestine. The bowel was moderately distended with gas and congested. A singular feature, however, was that at three points—two in the ileum and one in the sigmoid flexure—the canal was constricted sufficiently to constitute obstruction. In the ileum one of the constrictions was about fifteen inches from its lower end and six inches long ; the other was nearer the jejunum and about four inches long. The lumen was not entirely closed at either point, but was greatly reduced, being less than half the normal size ; while the diameter of the remaining portions of the bowel was increased, on account of the distention with gas. No peristalsis was observed, but the contracted portions could be dilated by “milking” the intestinal contents along. In the sigmoid the limitations of the contracted portion were not so sharply defined, but the lesion was just as evident. The walls were thickened and the caliber much diminished. Incidentally a small ovarian cyst on the right side was discovered and removed. As the intestine had been handled a good deal, the abdomen was flushed with normal salt solution. The incision was closed with two tiers of sutures—silk for the peritoneum and interrupted

silver wire for the remaining layers. The recovery was most satisfactory in every way. The bowels responded to the usual laxatives and enemas on the second day, and from the first to last there was not a hitch in her convalescence. The patient left the hospital in four weeks, and three weeks thereafter took a trip to Alabama. There could be discovered no evidence of lead or ptomain poisoning.

SPONTANEOUS RUPTURE OF THE UTERUS DURING LABOR AT TERM.

Dr. B. M. HYPES, of St. Louis, read a paper on this subject :

Mrs. O., aged 31, of German parentage, general health good ; had had one child four years ago. Labor pains began September 16, 1895, at 10 P. M., at full term. The family physician was called, and found labor in progress, vertex presentation, with normal condition of mother and child. The pains were slight and progress was slow. At 2 A. M., September 17th, he gave a dose of morphine and went home. At 9 A. M., upon his return, he found the patient comfortable, with occasional slight labor pains. He left the house, with injunctions to call him when signs of labor became pronounced. Patient remained quiet during the day. Suddenly, at 3 P. M., she was seized with violent vomiting, followed by the most excruciating pains in her abdomen, associated with rolling and tossing in bed, gasping for breath, faint feelings, pallid face and rapid exhaustion ; in short, the usual symptoms of abdominal shock. The family physician was at once sent for, and upon his arrival, at 4 P. M., found her in complete collapse, with convulsive seizures. The symptoms, with vaginal and abdominal examination, revealed to him this dreadful condition : the presenting part receded, the womb empty and the child plainly felt in the abdominal cavity. The patient had suffered spontaneous rupture of the uterus. The physician at once sent for surgical aid ; but by the time the surgeon, Dr. Meisenbach, arrived, the patient was moribund. Still, with the hope of saving the child, laparotomy was hastily performed ; and the child, which had escaped entirely into the abdominal cavity, was extracted from a mass of blood and amniotic fluid. It had ceased to live, and continued efforts at resuscitation failed to cause it to breathe. The child was fully developed, male, weighed six pounds and was eighteen inches long. The uterus, when removed from the body, presented the following condition : a rupture through the fundus superiorly, extending from half an inch from the entrance of one tube to an equal distance from the entrance of the other ; the walls at the place of rupture were comparatively thin. The placenta was located at the middle third of the uterus, anteriorly and to the right, where the walls were much thickened. The vaginal portion of the cervix was almost obliterated, as at term, and dilated for the ready admission of two fingers. The lower zone of the uterus exhibited no thinning or formation of Bandl's contraction ring ; there

was no disease of tubes, ovaries or placenta. A microscopical examination was made soon after rupture, and revealed fatty degeneration of tissue at the point of rupture.

PORRO'S OPERATION.

Dr. EDWIN RICKETTS, of Cincinnati, O., reported a case of Porro's operation at or near the fifth month for small fibroid of cervix, accompanied by hydramnios and total retention of urine :

Mrs. M., white, aged 26, of short stature ; the mother of two children, of six and three years of age : had had an abortion at eight weeks early in 1895 ; there was no specific history. She was a patient of Drs. J. B. and C. M. Warwick, of Lucasville, O. On February 23, 1896, she had severe labor pains, lasting thirty-six hours and accompanied by slight hemorrhage. The right portion of the cervix was soft and the left hard, which condition was also present at the time of operation. During April and until May 22d, the date of operation, she had great tenderness over the lower part of the abdomen, and at times had a temperature above 100° F., with a pulse running from 90 to 100. Dr. Ricketts saw her in consultation at her home, April 8, 1896, when for the first time motion of the fetus was barely perceptible. On May 22d, Drs. Warwick, Kline, Sellards and Ricketts found her abdomen larger than it should be at full term, which was due to the hydramnios present. There was no difficulty in moving the fetus freely in the abdominal cavity, so thin was the uterine wall. It was considered unwise to delay surgical interference, and a Porro operation was therefore performed, under as strict asepsis as the circumstances would permit.

After the abdomen was opened, Dr. Ricketts passed his hand down into the pelvis, breaking up the pelvic adhesions. Upon the delivery of the fundus of the impregnated uterus through the abdominal incision, a rubber ligature was thrown around it, low down and tight enough to control any hemorrhage which might occur. The fluid which escaped, upon opening the uterus, surpassed in amount any he had seen delivered *per viam naturalis*. After carefully sponging the parts, the wire was tightly adjusted below the rubber ligature by means of the K berl  clamp, and the rubber ligature then removed. After the delivery of the placenta, the fundus was amputated, leaving the ovaries and tubes intact. The abdominal wound was closed with silkworm-gut sutures, without stitching any tissue to the stump below the wire. No drainage-tube was used. The extraperitoneal part of the stump was dressed with gauze, moistened in glycerin and tincture of iron, the stump being held up by the double-hooded pin of Tait. The placenta and fetus were small for one of nearly five months' gestation, and the cord was tied in almost a hard knot—harder than any he had seen. The fetus had marked cyanosis and gasped but once. Recovery of the mother was satisfactory.

TREATMENT OF PUERPERAL INFECTION.

Dr. H. W. LONGYEAR, of Detroit, first spoke of the prophylaxis and, under this head, of the difficulty of securing reliable statistics regarding puerperal mortality of patients under the care of midwives in this country. The prophylaxis was divided into general and specific. He spoke of the treatment of infection from abortion and from childbirth at full term, and presented an instrument designed by him for use in removing the remains of secundines from the uterus. He also exhibited a self-retaining drainage-tube of his own invention and demonstrated its applicability. He reported two cases of puerperal infection treated successfully by the use of diphtheria antitoxin serum. He condemned the performing of hysterectomy for puerperal septicemia, except in very exceptional cases.

ATRESIA WITH RETENTION OF THE MENSES—TREATMENT.

Dr. WILLIAM H. MEYERS, of Fort Wayne, Ind., read a paper with this title. The author reported two cases of atresia, one with absence of the vagina and uterus, and the other with retained menstrual fluid. The last was operated upon successfully. He believes that in a case of atresia of the vagina with retention of menstrual fluid in the uterus, an operation ought to be completed at one sitting, the direct method being adopted. He thinks the teaching in a recent work, that "the best way is to make a small opening into the mass and allow the contents to flow away gradually," is not sound. He could not, therefore, see in rapid evacuation such great dangers as were referred to in the books.

PRINCIPLES AND PROGRESS IN GYNECOLOGY.

Dr. JOSEPH PRICE, of Philadelphia, delivered the president's address. He first thanked the association for the distinguished honor conferred in electing him president, which he said was the most gratifying expression of personal and professional kindness. He said the association was made up of earnest, enthusiastic and eminent men of the medical profession. We had more than a passing interest in the record of the transactions of our medical and surgical associations. From them the history of the progress of medical and surgical science would be made up; they would reflect the advanced thought and opinions, the strength of the endeavors, the results of clinical experience and research of the profession of this period. We had the inspiration of the reflection that our high service was that of humanity, and, Dr. Price said,

the members were there to learn through the interchange of the best counsel how to make that service the best.

SOME CAUSES OF INSANITY IN WOMEN.

Dr. GEORGE H. ROHE, of Sykesville, Md., read this paper, of which the following is an abstract: The general causes of insanity are the same in women as in men, but there are modifying conditions in the life history of men and women that influence the causation of mental disturbance as between the two sexes. General paresis and alcoholic insanity are more frequent in men because the latter are exposed to their causes to a greater degree and intensity. Menstrual, puerperal and climacteric insanity are, on the other hand, self-evidently limited to women. Women are especially subject to mental disturbances, dependent upon their sexual nature at three different periods of life: puberty, the child-bearing period and the menopause. The functions and activities peculiar to these periods have an intimate etiological relation to certain insanities. It is probable, however, that these functions have no influence in the production of insanity in their normal condition. It is only when the functions are disturbed or when pathological conditions are present that they have any unfavorable influence upon the psychical functions. At the period of puberty, menstrual derangements are not infrequently causative of mental disturbances which do not yield until the menstruation becomes normal. In the puerperium, insanity is dependent upon septic absorption or upon the consequences of other morbid conditions of the reproductive organs. Lactational insanity may be due to physical exhaustion, but in some cases pathological conditions of the genitals or of the breasts seem to have an etiological relation. At the menopause the disturbances of nutrition associated with the arrest of menstruation often produce insanity, and in many of these cases there will also be found abnormal alterations of the reproductive organs. The insanities following gynecological operations are either due to septic conditions or are merely due to the rapidly induced menopause. Their frequency has been much exaggerated.

THE RELATIONS OF VISCERAL DISORDERS TO THE DELUSIONS OF THE INSANE.

Dr. WALTER P. MANTON, of Detroit, Mich., said that the delusions of the insane are often an expression of somatic peripheral irritation has long been recognised, but observation leads Dr. Manton to believe that the importance of these mental manifesta-

tions as indices of bodily suffering was frequently ignored and they were regarded as a mere phase of the brain disorder, especially in the instance of supposed fancied visceral disturbances. For convenience of consideration, he placed the so-called visceral lesions in four classes: (1) Delusions arising *de novo* from the diseased activity of the brain. (2) Delusions regarding external or visible abnormal bodily conditions. (3) Delusions arising from easily determined visceral disorders. (4) Delusions dependent upon obscure abdominal and pelvic states.

OÖPHORECTOMY FOR THE INSANITY AND EPILEPSY OF THE FEMALE.

Dr. DAVID T. GILLIAM, of Columbus, O., contended in this paper that oöphorectomy was a logical and legitimate operation for the epilepsy and insanity of the female. Insanity is heredity, as is also epilepsy. They constitute the greatest curse to humanity. An insane father or an insane mother brings more misery into the world than any other father or mother. The offspring of such a parent, when ushered into the world, would be confronted by the awful spectacle of impending doom, and though he called on the rocks or the mountains to fall on him, the curse would pursue and overtake him. Dr. Gilliam then gave a picture from real life. He would limit the operation to those in whom the malady appears in some way to be connected with or dependent upon sexual disturbance. He would go further and include all who were willing to undergo the operation to save themselves and their offspring from the miseries which awaited them.

TREATMENT OF THE STUMP TO PREVENT ADHESIONS.

Dr. J. F. BALDWIN, of Columbus, O., followed with a paper on this subject. He estimated that about 1 per cent. of all subjects operated upon die from intestinal obstruction, the result of adhesions to the stump. To diminish as much as possible the danger of adhesions, he recommended the careful closing in of stumps by a peritoneal flap, and described the method of securing this flap. In cases in which the pedicle is, after a simple ovariectomy, not too large, he recommended that the pedicle be so ligated that the ends of the ligature were on the anterior face of the pedicle; that the ends of the ligature be then carried across the face of the stump, down and through the broad ligament, transfixing the ligament from behind forward. The ligatures should be passed through about half an inch apart. As the ends were drawn through and tightened, the raw end of the stump

should be rolled down and under the broad ligament, so as to be entirely protected. He had used this method in a large number of cases and with entirely satisfactory results.

ABDOMINAL SECTION FOR TUBERCULOUS DISEASE.

Dr. THOMAS E. McARDLE, of Washington, D. C., reviewed briefly what has already been done by surgical means for the relief of women suffering from tuberculosis of the generative organs. There is no doubt that tuberculous disease of the female genitalia is more frequent than is generally supposed. Every portion of the genital tract may be affected, the order of frequency for the various portions being the tubes, body of the uterus, ovaries, vagina, cervix and vulva. The tubes are affected in nearly all cases, the body of the uterus in about three-fourths of the cases and the ovaries in about one-half of all cases. Tuberculosis of the body of the uterus is not at all a rare affection, and has been frequently discovered in autopsies upon phthisical subjects. It can be the only focus of disease in the body, but it is generally associated with disease of the tubes and is secondary to disease of that organ. Of all the female genitalia, the vulva is the least liable to tuberculous infection.

MELANO-SARCOMA OF THE FEMALE URETHRA.

Dr. CHARLES A. L. REED, of Cincinnati, O., reported this case:

Mary E. Y., aged 64, single; brought to his private hospital Decem-3, 1895. The patient had had no previous serious illness. There was no history of tuberculosis or syphilis in the family. The virginal condition of the genitalia precluded the supposition of venereal infection of any character. Her general health was good, although there was some emaciation about the neck and breasts, the latter of which were flabby—changes no doubt incident to age. Careful examination revealed no diseased conditions about either the lungs or the heart. Careful palpation and percussion of the abdomen yielded negative results. About eight months previously,—i. e., in April, 1895,—she began to notice some pain, accompanied with blood, on micturition. This was shortly followed by a more or less pinkish discharge from the genital fissure. The self-examination which followed revealed a tumor at the meatus urethrae. This tumor continued to increase in both size and hemorrhagic tendency until she was prompted to consult Dr. Morris, who curetted the neoplasm thoroughly and treated it with styptics. When the patient came under Dr. Reed's care he found a black lobulated and eroded mass, about three centimeters in diameter, separating the labia majora. The orifice of the urethra was in the very center of this mass. A careful vaginal examination was not made at

the time, as the virginal structures, present in their integrity, rendered such an operation very painful. Operation was done the next day, December 4th. The small blade of a Jones speculum was introduced; the patient being in the Simon's posture, the urethra was by this means exposed in its entire length. A longitudinal incision was made through the mucous membrane along the dorsum of the urethra from a point where the presenting part of the mass was eroded to the base of the bladder. Another incision through the mucous membrane was made at right angles to the foregoing at a point far enough above the eroded mass to insure healthy tissue. The mucous membrane was then dissected back in two lateral flaps and the urethra was enucleated. The urethra was found to be distinctly conical in shape, the base of the cone being at the meatus, the apex at the bladder. Care was taken to dissect out the canal to a point manifestly above the zone of malignant involvement. When this point was reached, but a slight distance from the bladder, the canal, with the neoplastic walls, was excised. The cut margin of the cystic segment of the canal was seized at various points in its circumference by Kocher's forceps, brought down by gentle traction, and fixed by interrupted sutures of silkworm gut to the vaginal mucous membrane. A self-retaining catheter was inserted and the patient was put to bed. The sutures were removed on the eighth day. The catheter was dispensed with on the twelfth day. The patient sat up on the fourteenth day, when she found that she could retain her urine and void it at will. She was dismissed December 21st, entirely healed. She remained in good health until the 1st of July following—seven months—when she again summoned Dr. Morris because of some stomach symptoms. He found her suffering from persistent vomiting, and with a large mass in the epigastrium. This mass rapidly increased in size until it occupied all of the area between the navel and the breast bone, its nodular characteristics becoming more and more pronounced. She died of exhaustion, July 14, 1896, having had no recurrence whatever of the urethral trouble. No autopsy was permitted.

SUTURE OF LARGE VESSELS INJURED IN OPERATIONS.

Dr. J. B. MURPHY, of Chicago, demonstrated the method employed by him. He said in 1762 Lambert conceived the idea of suturing injuries to vessels. He made two experiments, in both of which he failed. Dr. Murphy then referred briefly to the experimental work of other surgeons along this line, pointing out their successes and failures. His own researches and operative work lead him to believe that, when a large vessel is injured in an operation necessitating a transverse division of it, not exceeding two-thirds of its circumference, the surgeon can resort to immediate suture without resection, and, if the field of operation be

aseptic, can feel more certain that he will have union of the vessel and continuation of the current than he could when he sutures the intestine as for resection of the bowel. He believes from his observations that the chances are better with the suture. The importance of this concerns surgeons more in the treatment of aneurisms. Coming to the question of stab and bullet wounds of the extremities, he said there was a great field for improvement in past operative work. Formerly we ligated vessels, and when this was done the inevitable result was death of the limb. He believes that now such limbs can be uniformly saved, particularly in the aseptic cases. With his present method of suturing large vessels, he is not afraid to suture any vessel in the body, feeling confident that adhesion or union will take place.

CONTUSIONS OF THE ABDOMEN.

Dr. W. G. MACDONALD, of Albany, N. Y., presented a communication with this title. Contusions of the abdomen, he said, are always grave injuries. The question of surgical intervention, although much discussed, cannot be regarded as satisfactorily settled. Seven cases of traumatic rupture of the stomach and small intestine were reported. Two operations were undertaken, with one recovery and one death the eighth day after operation from second rupture. All the inoperative cases resulted fatally. Reference was made to the general absence of evidence of contusions in the abdominal walls when serious visceral injury has occurred. Very slight causes, particularly if the intestinal canal is distended with fluids, may produce intestinal rupture, as the falling out of bed, a blow from a barrow handle. The early symptoms of intestinal laceration are not always distinctive. An analysis of 200 cases of intestinal laceration as associated with abdominal contusion was made with a view to determining the symptoms. The following topics are considered the important ones: History of the nature of the injury, shock or collapse, pain, vomiting, pulse, temperature and physical signs. Careful investigation of a given case will usually show sufficient symptoms to make an early exploratory abdominal section imperative.

ELECTION OF OFFICERS.

The following officers were elected: President, Dr. James F. W. Ross, Toronto, Can.; first vice-president, Dr. George Ben Johnston, Richmond, Va.; second vice-president, Dr. John C.

Sexton, Rushville, Ind.; secretary, Dr. William Warren Potter, Buffalo, N. Y.; treasurer, Dr. X. O. Werder, Pittsburg, Pa.

The next meeting will be held at Niagara Falls, on August 17, 18, 19 and 20, 1897.

Progress in Medical Science.

SURGERY.

By JOHN PARMENTER, M. D.,

Professor of anatomy and adjunct professor of surgery, Buffalo University Medical College.

KELLY (*New York Polyclinic*, August 15, 1896,) describes his method of treating burns. He regards the inefficient results obtained so often as due to the nonrecognition of asepsis in the management of this class of cases. Indeed, he would make asepsis the fundamental principle in the therapy of burns. He mentions the dry dressing to condemn it as impracticable, for the reason that asepsis cannot be maintained and that toxic effects are prone to follow. The author's method (for which he claims no originality) is simply a moist dressing, for which he claims the following advantages—namely, that “the materials are all easy of procurement, easily sterilised or impregnated with antiseptics, if required, and are easy of application.” Furthermore, the dressing is most efficient in controlling or at least mitigating sepsis, is comfortable to the patient when applied, and its removal is absolutely painless. Asepsis is preferable to antiseptics. Shock is met by using morphia hypodermatically. The wound is first irrigated with sterile water (110°) or Thiersch's solution if there be no sepsis present; with bichloride solution (1-1000) where infection has already occurred, to be followed with sterile water when the surface irrigated is large. Unbroken blisters are never ruptured, as the epidermal covering protects the surface beneath from infection. When tense and threatening rupture they are aspirated subcutaneously with a sterile needle. The dressing proper is adjusted to the different degrees of severity; portions simply hyperemic are anointed with a 5 per cent. solution of phenol in sterile olive oil, which reduces heat and itching when present; strips of gutta-percha tissue previously kept in a 2 per cent. carbolic acid solution. This same material may be applied over unbroken blisters to protect them from rupture. Over areas where slough is impending

a moist gauze compress is applied, covered with rubber tissue to prevent evaporation. Over all a large thick layer of sterile cotton is laid and held in place with a well-fitting bandage.

The author at this juncture emphasises the necessity for the same scrupulous cleanliness of hands and instruments as in any aseptic operation, and the maintaining of these precautions throughout the conduct of the case. He advises changing the dressings daily during the first week, after which time every second or third day will suffice. As to iodoform, he regards it as useful but dangerous when applied over extensive surfaces. Grafting may be done after the separation of the sloughs. Where deep losses of substance have occurred, plastic operation by flap with pedicle may be best employed. Few cases require much more than a month for their satisfactory completion.

NANCREDE (*Annals of Surgery*, August, 1896,) contributes an article upon the operative treatment of Jacksonian and focal epilepsy, in which he relates the histories of four cases, in three of which a traumatism and in a fourth a probable apoplectic effusion were the causes producing the epileptic attacks. The final results in these cases, as well as in others, similarly caused and operated upon, leads the author to make the following conclusions :

(1) Removal of the discharging lesion in cortical and Jacksonian epilepsy can only be regarded as palliative, the operative scar in all instances thus far accessible to me, in time, becoming a new source of irritation. (2) The earlier the operation is done after the disease becomes fully established, the longer will the immunity last, and it is possible that if trephining is done very early, the operation may in a few instances prove curative, especially if any reliable method can be devised to lessen the extent of the inevitable scar and adhesions between the brain and the membranes. (3) That operation is not so dangerous in competent hands as to forbid our urging trephining in this class of epilepsies, especially when done early, because the chance of prolonged immunity is great, and the fits are apt to be lighter and to recur at greater intervals after relapse than before trephining. (4) Removal of the discharging lesion is imperatively demanded as a life-saving measure in those rare cases where the intervals between the fits are so short that the paroxysms are practically continuous. (5) In all cases, but especially those characterised by frequent paroxysms, it is an error in practice to permit the early resumption of work,

particularly manual labor. Thus, in addition to the last case cited, I would call attention to another where I trephined for ordinary traumatic epilepsy, which remained perfectly well for nearly two years, until attempting to lift a heavy weight, the encephalon becoming suddenly congested, the patient at once had a fit, since when the convulsions have been nearly as frequent as they were before operation. (6) Operation removes only one of the factors productive of epilepsy, but the early response to inadequate stimulation remains, and can only disappear, if ever, after a prolonged period; therefore, careful avoidance of everything which can, either through the mind or body, excite sudden and severe acute cerebral congestion or undue, prolonged, mental strain, constant congestion of the nervous centers, must be avoided for the longest practicable period—for the remainder of life, if possible.

WIRT (*International Journal of Surgery*, September, 1896,) details his treatment of chronic joint affections with dry heat at high temperature. This means the prolonged use of a temperature of 250° to 300° F. for a period of one-half to one and one-half hours. For this purpose an apparatus was constructed, which consists of a copper cylinder twelve and one-half inches long and ten inches in diameter. Fitting into each end of the cylinder is a wooden ring or disc, one inch wide by one inch thick. The wooden rings are secured in the ends of the cylinder by eight short screws passing from the outside through the cylinder into the rings. At each end of the cylinder is a hood, which encircles the limb and is drawn tight by means of puckering strings. The hood is made by double-coated rubber cloth, and is attached to the cylinder by being nailed to the wooden rings, the extreme end of the hood being held in place by a wire band. On each side of the cylinder, diametrically opposed, are two or three holes one-half inch in diameter. The purpose of these holes is to allow a rapid change of air in the cylinder. The cylinder is supported horizontally in a wooden frame, so that the lower surface of the cylinder is eighteen inches from the floor, or about the height of an average chair. Heat is applied by means of oil, gasoline, or the gas jet and the mixed gas and air jet, which is the Bunsen burner; the latter is probably the most convenient. The heat should not be turned on too rapidly at first, as the patient's endurance is greater if the heat is applied gradually.

The author describes his method for treating the knee as follows :

I apply a layer of cotton to the back of the limb in the popliteal region, securing it in place by loosely tied tapes. This is done for two reasons : in the first place, it will equalise the temperature, as undoubtedly the lower part of the cylinder is much hotter than the upper, and secondly, I found that the profuse perspiration resulting from the high temperature caused a dropping of fluid to the bottom of the cylinder, where it was instantly turned into steam, and this steam would immediately scald the limb. The limb being thus protected by the cotton, is inserted into the cylinder until the knee is in the center, the heel placed on a chair high enough to keep the calf from touching, if possible, even the wooden rings, which, though they do not ordinarily burn, yet may get uncomfortably warm. The hoods are drawn tightly around the limb, and at the start rubber corks are inserted in the holes in the cylinder, but are withdrawn when the cylinder is thoroughly heated. The heat is then applied to the cylinder and is carried up to the limit of endurance of the patient, which varies from 250° to 300°, and is kept at this point for an hour or more. One patient of mine could stand a temperature of 290° for over an hour. In a case I recently treated, I carried the temperature to the extreme point of 360° F., for a period of nearly five minutes.

The thermometer I use is a laboratory thermometer with a scale that will register up to 450° F. I have found it most satisfactory to allow the patient to hold one end of the thermometer while the bulb end is held within the cylinder alongside the knee against the cotton. Care should be taken not to touch the limb with the thermometer, for if this happens the limb will be blistered ; this can easily be prevented by the proper use of the cotton.

The effect of such a high temperature is to enormously increase the perspiration from the local part, to increase perspiration over the whole body, to increase the amount of blood to the part, or at least the surface circulation, to increase the lymphatic circulation, to relieve pain and to increase mobility in the joint. The relief of pain and the increased mobility last for some hours after the application of the heat.

HEART-STRAIN—Pawinski regards caffeine as of especial use in functional and degenerative disease of the heart-muscle, and especially in the early stages. Sudden heart-strain from emotion or during fevers is particularly benefited by caffeine.—*Medical Times and Hospital Gazette*.

Correspondence.

MR. RAFTER AND LAKE ERIE WATER SUPPLY.

To the Editor:

SIR—The August number of the *BUFFALO MEDICAL JOURNAL* contained an article On Lake Erie as a water supply for the towns on its borders, by George W. Rafter. On the twenty-first page were the following statements:

The Health Department of the City of Buffalo has, to the credit of that city, instituted frequent systematic bacteriological examinations of the Lake Erie water as supplied to the consumers in Buffalo. By courtesy of Dr. William G. Bissell, city bacteriologist, I have been afforded an opportunity to examine the results of the last year's work. The most interesting point brought out is the great decrease in number of bacteria present in the water as it leaves the reservoir in comparison to the number in the water as it enters. The sedimentation frequently reduces the number from 30,000 to 40,000 per cubic centimeter to from 400 to 700 per cubic centimeter. In a practical way, however, it ought not to be overlooked that the water at the bottom of the reservoir must contain vast numbers, among which it is probable that some are the specific morbid causes of disease. We may conclude, then, that the bottom needs to be cleaned frequently as a safeguard against possible contamination from this source.

The officials of the Buffalo Health Department are, however, disposed to say that Lake Erie is an unexceptionable source of water supply because they hardly ever detect the specific germ of typhoid fever. On this point I am compelled to disagree and cite the results of an investigation of the relation of the bacillus of typhoid fever to sewage made by Laws and Andrewes for the London County Council, as published in the early part of 1895.

Mr. Rafter then rehearses the generally conceded evidence in regard to the unreliability of typhoidal investigation with sewerage and the like.

Where the author (Mr. R.) obtained the positive information regarding the influence of sedimentation upon the water in the Buffalo reservoir I am at a loss to understand, for careful examination of the official records in the bureau of bacteriology does not reveal such information.

As to Lake Erie being an "unexceptionable source of water supply," (depending on the failure to demonstrate the presence of the typhoidal organisms,) the following letter, in answer to a personal inquiry as to where this information was obtained, fully explains the reliability of the statements as coming from the health department:

GEO. W. RAFTER, M. AM. SOC. C. E.,
EXPERT ENGINEER.

ROCHESTER, N. Y., August 30, 1896.

My Dear Dr. Bissell:

Yours of August 11th reached me in due course. I did not refer to you at all in the matter of special stress on inability to detect the typhoid bacillus. The statements published in the Buffalo papers, as coming from the department, are my source of information on the point in question.

You are safe in the proposition that Buffalo water is, at times, very seriously contaminated.

I hope to have the pleasure of talking with you again some time.

Very sincerely, GEO. W. RAFTER.

To DR. WM. G. BISSELL, Buffalo, N. Y.

It is a known and acknowledged fact that the public water supply of Buffalo is open to serious contamination at any time, and undoubtedly is more or less polluted all the time.

It is and has been the custom of the health commissioner and his subordinates to recommend constant household filtration.

WILLIAM G. BISSELL.

Department of Health, October 9, 1896.

CLINICAL APPLICATIONS OF BENZOSOL.

DR. J. V. KOFRON, of Cleveland, O., writing in the *American Therapist*, for June, 1896, lauds benzosol very highly in cases of incipient pulmonary tuberculosis, chronic bronchitis, tubercular diarrhea, chronic gastric catarrh, intestinal catarrh with flatulence and typhoid fever.

Very surprising were the results obtained from the use of benzosol in the treatment of cases of tubercular diarrhea, in which the remedies usually administered proved of little value. In doses of four grains every four hours, it seemed to have an almost specific action in checking the exhausting diarrhea and in improving the digestion and general condition of the patient.

Benzosol is a chemically pure benzoate of guaiacol, containing approximately 54 per cent. of the latter agent. It occurs in the form of a slightly pinkish, finely granular powder, which is entirely devoid of taste or odor; it is practically insoluble in any of the ordinary menstrua and is preferably administered in the form of powder, pill or capsule. Benzosol passes unchanged through the stomach and is split up into its component parts (benzoic acid and guaiacol) by the alkaline juices of the intestine.

This fact accounts for two of its principal clinical advantages:

1. The avoidance of the unpleasant eructations which so frequently occur after the administration of pure creosote or guaiacol, and

2. The liberation of the antiseptic guaiacol in the intestine, where its action is especially desired in the treatment of septic conditions of the intestinal tract attended with fermentation.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITORS:

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed
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No. 4.

SEMICENTENNIAL ANNIVERSARY OF ANESTHESIA.

ON FRIDAY evening, October 16, 1896, a meeting was held in the Alumni Hall of Buffalo University Medical College commemorative of the discovery and practical application of anesthesia to surgical operations, it being the fiftieth anniversary of that event. In response to invitations, a large number of physicians and friends of the college filled the hall at an early hour, a considerable proportion of the audience being women. Promptly at 8.15 o'clock, the Hon. James O. Putnam, chancellor of the university, appeared, accompanied by Prof. Roswell Park, Prof. E. M. Moore, of Rochester, Hon. T. Guilford Smith, regent of the University of the State of New York, and several members of the faculty of the University of Buffalo.

The exercises opened with an address by Chancellor Putnam that we print in another column of this issue of the JOURNAL. It will appear to those who were present needless for us to say that the learned chancellor was at his best on this occasion, and that his well-chosen, eloquent words fell in pleasing cadences upon the ears of his listeners. Next followed an address by Dr. Roswell Park that also appears in this edition, and which was replete with instructive history on the subject of anesthesia in general and its application to surgery in particular. We quite agree with Dr. Park in his analysis of the rights of the respective claimants to the discovery. Practically there are but four claims to be considered in this relation, and their rights have been fairly dealt with, as well as equitably summed up by the speaker of the evening. We commend a careful reading of this address to all interested in the subject.

When the venerable and erudite Professor Moore was introduced by the chancellor he was received with a storm of applause which lasted some minutes. How fittingly the words of Chancellor Putnam were chosen in presenting him: "He has been well styled," said the chancellor, "by his brethren, their Nestor. If now in his advancing years Professor Moore be like Mont Blanc, snow-capped, he is like Mont Blanc in another respect, the highest peak in his professional range."

Dr. Moore entertained the audience most delightfully with pleasant reminiscences of his surgical experiences in the pre-anesthetic period. He was rich in thought, easy in expression, entertaining in anecdote and wise in his utterances. There were many in the audience who had listened to Professor Moore when he was an honored teacher of surgery at the college, and who eagerly sought the opportunity to shake his hand in cordial good wishes after the conclusion of the ceremonies.

After Dr. Moore's speech, the chancellor called upon Drs. C. C. Wyckoff and John Hauenstein, who entertained the audience for a few minutes with local reminiscences of the early days of surgical practice, before and about the time of the introduction of anesthesia. It was an occasion long to be remembered by those present, and reflects much credit upon the faculty, who planned and carried out the commemoration of an event that perhaps is not equaled in its importance by any other that has happened in the history of surgery.

We devote considerable space in this edition of the JOURNAL to the publication of the addresses for which we need make no apology. The pictures that are introduced in connection with it cannot fail to prove of interest, and we trust that our readers will be entertained, if not instructed, by a careful examination of the record. The portrait of Dr. Morton, and the scene at the Massachusetts general hospital, we have reproduced from the Trials of a Public Benefactor.

We desire to call special attention to the proceedings of the Medical Society of the County of Erie, held in February, 1865, when Dr. Morton visited Buffalo in connection with his discovery. We think it a fitting climax to the anniversary proceedings to publish these minutes, that they may be preserved as a part of the history of the occasion, and as practically showing that Buffalo was not slow to recognise Dr. Morton's just claim to the sympathies and substantial aid of the profession and the people.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND
GYNECOLOGISTS.

THIS association held its ninth annual meeting at Richmond, September 22, 23 and 24, 1896, and it may be truthfully asserted that it was one of the best meetings in its history. This was the consensus of opinion among members upon adjournment, and as the published proceedings become available the judgment then expressed is reaffirmed.

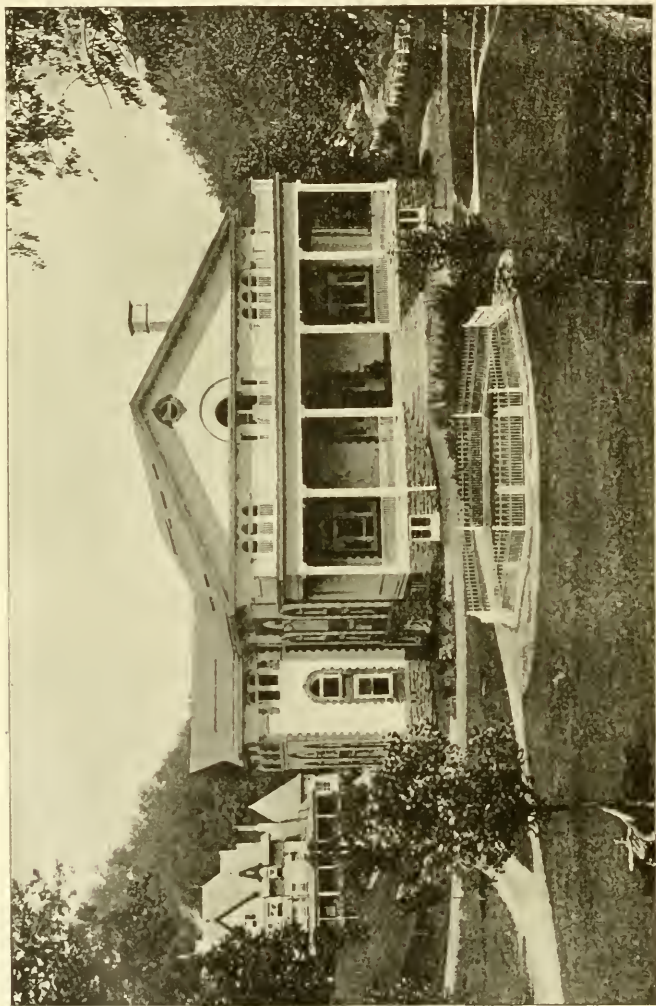
In the first place, Richmond in late September is a most delightful city in which to hold such a meeting, and the hotel Jefferson, now available for such purposes, is second to no hostelry in the United States. We speak from a considerable personal experience as well as the judgment of others who have traveled extensively. The plan of the hotel is somewhat unique, its management is second to none, and its cuisine and furnishings are superb.

The local committee of arrangements, consisting of Dr. George Ben Johnston, chairman, Dr. Hugh M. Taylor, Dr. Edward McGuire, Dr. J. W. Long, Dr. J. F. Winn, Dr. Christopher Tompkins and Dr. Lewis C. Bosher deserve special credit for the excellent plans made and carried out for the entertainment of the association. It is difficult to see how they could have been better. At the instance of the committee the trunk lines of railways centering at Richmond conceded a reduction of passenger rates which bespeaks enterprise and liberality in the management of these important avenues of commerce and travel.

The Westmoreland, Commonwealth and Albemarle clubs opened their houses to the visitors, and most of the members and guests partook of their hospitalities. Drs. Taylor and McGuire entertained the association at a reception on one of the evenings, and Dr. George Ben Johnston appropriated another for that purpose, while Mrs. Christopher Tompkins received the ladies at her residence on one of the afternoons.

At the annual dinner of the association, which was served in one of the magnificent dining-rooms of the Jefferson on Wednesday evening, September 23d, a departure from the usual order was observed. In the first place, ladies were admitted to the dinner for the first time; and in the second, there were no speeches made in response to fixed toasts proposed. A reason for this change was because Mr. Polk Miller, of Richmond, who was the guest of the association, kindly offered to entertain it with his delineations of plantation negro life. The association thought the ladies

who had accompanied members ought not to be deprived of the privilege of hearing Mr. Miller, and it was a pleasant change from the ordinary routine of toasts and speeches. Whoever has been fortunate enough to listen to Mr. Miller need not be told how



BATH HOUSE, HOT SPRINGS, VA.

entertaining he is, and whoever has not heard him has missed one of the most delightful and mirth-provoking entertainments that is given anywhere on the globe. No description can do it justice. It was an entertainment at once refined in character, charming in

the method of its presentation and provocative of the highest sense of humor and pathos.

The Valentine Meat Juice Company entertained the association at luncheon at their abbatoir on the north side of Richmond, on the third day of the meeting. Here the members were afforded an opportunity to witness the scientific slaughter of beeves for the purpose of manufacturing meat juice, and to inspect one of the most complete and expensive abbatoirs in the country.

After the adjournment of the association, that is to say, Friday, September 25th, Dr. C. W. P. Brock, chief surgeon of the Chesapeake & Ohio railway, took the members of the association in charge for a tour as the guests of the railway, and under his direction a visit was first paid to the University of Virginia at Charlottesville. Here Professor Parkinson entertained the visitors at luncheon and a few hours were spent in strolling about the grounds and buildings of this historic old institution. In the evening a west-bound train was boarded and the visitors were taken to Hot Springs, where they enjoyed a rest until Sunday. This beautiful location in the mountains of Virginia is one of the most delightful resorts in the country. In addition to its princely hotel, The Homestead, it has a bath establishment that is unexcelled, the cost of which was \$150,000. After two days' rest the guests sped eastward and westward to their respective homes on the superb fast trains of the Chesapeake & Ohio railway, and so ended a most successful scientific meeting, which was also charmingly complete in its social entertainments.

TOPICS OF THE MONTH.

CONCERNING the lowering death-rate at Buffalo, the *Journal of the American Medical Association*, September 12, 1896, prints an editorial highly complimentary to the present administration of the health department of this city. Although the statement it makes may impress the casual observer as somewhat remarkable, it is not an exaggeration of existing facts.

The article in question speaks of the death-rate in London, the largest civilised city in the world, as having been reduced to about 17, while in the United States with less concentration of population in large cities there has been less careful administration of health laws, hence a much higher death-rate. It must not be forgotten, however, in this relation that we are fast approaching a

similar concentration of urban population as that existing in Europe. Nearly one-fourth of our total population is concentrated in cities of 10,000 or more inhabitants. The increase of percentage in our population is greater in cities than in rural regions. Our aggregate increase is about 7 per cent. a year for the whole United States, 4 per cent. of which goes to the cities.

The importance, therefore, of a rigid administration of the best sanitary laws science can afford is apparent in the light of the foregoing statement. The journal referred to says that it has lately come to its notice that the death-rate in Buffalo has been reduced to 11.67. This is attributable, it asseverates, to the persistent and heroic labors of Dr. Ernest Wende, Health Commissioner, under whose administration Buffalo has reached the lowest death-rate made by any city of the world of equal size. If the saving of one life, continues the *Journal*, is worthy of medals and public honors, what kind of medals and honors should be awarded to Dr. Wende for the thousands that are living in Buffalo today who under a less thorough sanitary management would have died?

The *Journal* awaits with some interest the answer that Buffalo through her constituted authorities will make to this question in filling the office of health commissioner when the present term expires, December 31, 1896. We confess that it is difficult for us to see but one logical answer, and that is to appoint Dr. Wende to succeed himself.

WHILE on the subject of public health we are pleased to note that there is a disposition manifesting in many American cities to discuss, in popular assemblies, problems relating to improvement in sanitation. Lately, according to the *San Francisco Examiner* of October 17, 1896, Rabbi Voorsanger, a famous pulpit orator, in a course of winter lectures on timely topics, delivered an address on the great need of hygienic self-defense. He handled the subject from the practical standpoint of a sound business man coupled with the education of a scholar. He asserted that health, sanitation and hygiene are subjects that he hoped some day would be deemed as important as the three R's in the curriculum of public education; that the secret of public health is the knowledge of every individual to take care of himself; that we should avail ourselves of all intelligent means to live long, and that after the commonwealth understands the means of attaining the prolongation of the life of

the citizen, he may bow to a community that proceeds intelligently in the path of public duty, which must result in lasting happiness.

The eloquent speaker also affirmed that we need to learn the art of hygienic self-defense ; and that we commit suicide through our ignorance of the defined laws of cleanliness, which latter means clean pure homes, clean pure persons, as well as healthy minds. It means also pure, unadulterated food, unpolluted air, pure water, and an intelligent effort to prevent the contamination of these three essentials of good health.

The intelligent presentation of this subject to a popular audience by a man so full of information as Rabbi Voorsanger is to be commended.

THE semicentennial anniversary of the discovery of anesthesia was appropriately celebrated at the Massachusetts General Hospital, Boston, Friday, October 16, 1896. The old amphitheater of the hospital had been restored as nearly as could be done to its condition October 16, 1846, at the first public demonstration of anesthesia in surgery.

Distinguished guests were invited to celebrate the event in interesting addresses in prose and verse. Among these were Drs. Robert T. Davis, of Fall River, Mass., who witnessed the original event and who gave an appropriate address of reminiscences ; Dr. John Ashurst, Jr., of Philadelphia, who spoke of surgery before the days of anesthesia ; Dr. Charles McBurney, of New York, who discoursed upon the surgery of the future, and Dr. S. Weir Mitchell, of Philadelphia, who read a poem on the birth and death of pain. Besides these, Dr. David W. Cheever, of Boston, spoke under the title, What has anesthesia done for surgery ? and Dr. J. P. Reynolds, of Boston, delivered an address on Anesthesia in obstetrics. Among those present were Lord and Lady Playfair, of London. Lord Playfair delivered a brief extemporaneous address, in which he gave full credit to the United States for the discovery of anesthesia.

Most appropriately among those present as invited guests were Mrs. William T. G. Morton, widow of the discoverer ; Dr. William J. Morton, of New York, his son ; Mrs. Frederick Young, of Newark, N. J., a daughter, and Sydney Otis, a grandson, who is now a sophomore at Harvard. The *Boston Medical and Surgical Journal*, in its issues for October 15 and 22, 1896, published the addresses and ceremonies in full, including that of Mr. Charles H.

Dalton, president of the hospital, who welcomed the guests in appropriate words. Our contemporary also published a number of illustrations relating to the event commemorated, and we are indebted to it for the courteous loan of the plate showing the restoration of the old amphitheater that appears on another page of this edition.

IN REFERRING to the great event which just now is absorbing so much attention and which has been so elaborately commemorated in Boston, we deem it proper that some mention should be made of the patient who voluntarily took the anesthetic and upon whom Dr. J. C. Warren operated October 16, 1846. His name was Gilbert Abbott, a single man and a printer by trade, and who was possessed of a tumor that discolored the whole of one side of his neck in front—*nevus maternus*—commonly called a birth-mark. The tumor extended along the lower jaw to the maxillary gland and into the mouth, embracing the margin of the tongue. The operation was successful; at its conclusion the patient declared he had not suffered, and Dr. Warren, the operator, enthusiastically announced that the conquest of pain had been achieved. Whoever may have taken ether before, it remains a fact that to this man it was administered for the first time to make an important surgical operation, and it is he who is represented as the patient in the engraving published elsewhere. We think, therefore, the thanks of the professional world is due to Dr. Washington Ayer, of San Francisco, Cal., an eye witness of this operation, and to Dr. John Homans, of Boston, for calling attention to the propriety of including Abbott's name among those entitled to credit for contributing to the successful application of an anesthetic for the first time in surgery.

Personal.

DR. P. M. WISE, formerly of Clarence, Erie County, N. Y., has been appointed state commissioner in lunacy vice Dr. Carlos F. McDonald resigned.

Dr. Wise was educated in the common schools, at Clarence Academy and at the Parker Classical Institute. He was graduated in medicine at the Buffalo University Medical College in 1872, and entered the St. Louis City Hospital as interne. During the small-pox epidemic of the following winter he was appointed resident physician of the smallpox hospital. In 1873, he was appointed

an assistant physician at the Willard Asylum for the Insane, and so remained until 1884, when, upon the resignation of Dr. Chapin, he was unanimously elected to fill the vacancy as medical superintendent. He occupied this position for six years, and until he resigned to accept a similar position at the St. Lawrence Hospital, which he has occupied until the present time.

For the last five years he has been professor of mental diseases in the University of Vermont. He is the author of a Text-book for training-schools for nurses, in two volumes.

DR. JOHN B. HAMILTON, of Chicago, editor of the *Journal of the American Medical Association*, has resigned his commission as surgeon in the U. S. Marine Hospital Service. Dr. Hamilton is to be congratulated on relieving himself of an incubus that could not be otherwise than disagreeable. He will now devote his entire attention to his large surgical practice and to editorial work.

DR. JOHN T. PITKIN announces that he is prepared to perform all manner of X-ray work, flourescopic or skiographic, of any portion of the human bony framework or foreign bodies in its addenda. He is located at 388 Ellicott Square and invites inspection of his apparatus and work.

DR. JACOB GOLDBERG, of Buffalo, has removed his office and residence from 145 Cedar street to 329 Eagle street. Dr. Goldberg has prepared his office for special work in diseases of the eye and ear. Hours: 9-12 A. M., 3-5 and 7 P. M. Telephone, Howard 222—A.

DR. FRANK P. VANDENBERGH has been appointed commissioner of the State of New York to the Tennessee Centennial Exposition at Nashville, in 1897.

DR. WILLIAM G. BISSELL has removed from the corner of Porter and Normal avenues to the Buckingham, corner Allen and Mariner streets.

Society Meetings.

THE Southern Surgical and Gynecological Association will hold its ninth annual meeting at Nashville, Tenn., Tuesday, Wednesday and Thursday, November 10, 11 and 12, 1896. The Nicholson house has been selected as headquarters for the association, and arrangements have been made with the Southern Passenger Association for reduced rates on the certificate plan. Those who contemplate attending the Pan-American Medical Congress, to be held in Mexico, November 16-19, will have time to do so after the meeting of the Southern Surgical and Gynecological Association. The rate of one fare for the round trip has been made on account

of the Congress, stop-over privileges being allowed to holders of tickets to Mexico.

An elaborate program has been prepared under the direction of the secretary, Dr. W. E. B. Davis, of Montgomery, Ala.

THE Lake Erie Medical Society held its regular quarterly meeting at the Crawford house, Cattaraugus, N. Y., Thursday, October 8, 1896. The officers were as follows: President, Dr. A. D. Lake, Gowanda; vice-president, Dr. N. A. Beardsley, Dunkirk; secretary and treasurer, Dr. W. W. Jones, Dayton; program committee: Dr. William N. Warren, North Collins; Dr. T. T. Clohessey, North Evans. The program was as follows: Address of welcome by Dr. Lattin, response by the president. Papers: (1) The differential diagnosis of spinal disease, Dr. Floyd S. Crego, Buffalo; (2) How shall we treat erysipelas? Dr. N. A. Beardsley, Dunkirk; (3) Pleurisy with effusion, Dr. George Lattin, Cattaraugus; (4) Presentation of cases.

THE Medical Association of Central New York held its twenty-ninth annual meeting at Rochester, Tuesday, October 20, 1896, when the following officers were elected for the ensuing year: President, Edward B. Angell, Rochester; vice-president, William C. Krauss, Buffalo; second vice-president, F. H. Stephenson, Syracuse; secretary, C. A. Van Der Beek; treasurer, S. L. Elsner, Rochester.

The meeting in all respects was one of the best in the history of the association. The proceedings and papers, as usual, will appear in the JOURNAL. The next meeting will be held at Buffalo, Tuesday, October 19, 1897. In order to join the association, attendance must be had upon two successive meetings and the payment of the initiation fee of \$2. The yearly dues are \$1, and in return all members receive the transactions.

Book Reviews.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by THOMAS L. STEADMAN, M. D., New York City. In twenty volumes. Volume VIII. Diseases of the Digestive Organs. New York: William Wood & Company. 1896.

The contributors to the volume before us are Dr. B. Farquhar Curtis, Dr. Max Einhorn, of New York; Dr. Reginald H. Fitz, of Boston; Dr. Joseph M. French, of Cincinnati; Dr. J. Ch. Huber, of Memmingen, Bavaria; Dr. Werner Kümme, Dr. Johann Mikulicz, of Breslau; and Dr. Hans Leo, of Bonn.

The first section, written conjointly by Mikulicz and Kümme, is devoted to a consideration of diseases of the mouth. This is a

subject that has received little attention heretofore, and this chapter is deserving of careful examination in the light of newer pathology and advanced therapy. The second section relates to diseases of the esophagus, and is written by Fitz. This author is always painstaking, and has briefly set forth the salient features of diseases of this organ as at present understood.

The next section treats of diseases of the stomach, is written by Einhorn, and comprises about 240 pages of the book. As might be expected from the nature of this important disease, the subject is exhaustively handled by the distinguished author and contains many suggestions on pathology and treatment that are of quite recent origin; indeed, it is the latest extended publication on the subject and contains its important bibliography to date. Credit is given to Drs. Charles G. Stockton and Allen A. Jones, of Buffalo, for work they have done and published in this department of medicine. Cancer of the stomach is always a subject of deepest interest and is well handled in this work. There is no department of medicine that demands closer study by the general practitioner of medicine than diseases of the alimentary tract, and especially those of the stomach. It is here that the foundation is often laid for future diseases, that, neglected, may become uncontrollable; or checked, may become easily curable. We cannot commend this treatise of Einhorn too highly.

The next section takes up diseases of the pancreas and is by Leo. Here our knowledge is limited, hence the author writes briefly upon his chosen subject; nevertheless, what he presents may be regarded as an epitomé of our knowledge of the diseases of the pancreas up to the present time. The following section is devoted to diseases of the peritoneum and is by Curtis. This author devotes about 100 pages of the volume to the consideration of his subject, which is more or less exhaustive in character. Under special forms of peritonitis he includes appendicitis, which is a subject very much in evidence at present. About forty pages of this section are taken up with this subdivision, which is an exceedingly interesting resumé of our present knowledge of appendicitis. Curtis' entire chapter is of great value and cannot help but aid the general physician in the solution of many difficult problems that are presented to him at the bedside.

The next section discusses animal parasites and the diseases caused by them, and is written by Huber. Of special interest in this chapter will be found a dissertation on the development of echinococcus cysts. Huber is also again interesting in his discussion of filaria and trichina. The final section of the volume is devoted to the consideration of the treatment of diseases caused by animal parasites, and is written by French. A comprehensive index finishes the volume.

This series is readily assuming a definite and fixed place in the literature of medicine and will be found a valuable supplement to even an already overgrown library. If, however, there has been

in the minds of some a question as to the propriety of occasionally issuing cyclopedic systems of medicine, there can now no longer be any question as to the appropriateness of publishing this one. It is demonstrating its value and importance volume by volume.

The present volume has been issued out of its order, hence the next to be published will be Volume VII.

A COMPEND OF DISEASES OF CHILDREN. Especially adapted for the use of Medical Students. By MARCUS P. HATFIELD, A. M., M. D., Professor of Diseases of Children, N. W. U. Medical School, etc. Quiz Compend, No. 14. Duodecimo, second edition, thoroughly revised. Price, 80 cents. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1896.

If the quiz compend were used properly as a handy dictionary of diseases, or terms in a special branch of medicine, it would not be so objectionable. The student who depends on it for more is certain to have superficial knowledge where he should be well grounded. Especially is this true in pediatries. Still, for a work of this kind, the book is a good one, except in a few particulars. It is not up to date on the subject of infant feeding, and we doubt if the paragraphs devoted to its consideration received the thorough revision given the rest of the volume.

THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM, being a Practical Treatise on Fistula, Piles, Fissure and Painful Ulcer. Procidencia, Polypus, Stricture, Cancer, and the like. By WILLIAM ALLINGHAM, F. R. C. S., England; late Senior Surgeon to St. Mark's Hospital for Diseases of the Rectum, etc., and HERBERT W. ALLINGHAM, F. R. C. S., England, Surgeon to the Great Northern Hospital, etc., 8vo, pp. xvi.—485. Sixth edition. New York: William Wood & Company. 1896.

This classic treatise is to be found on the shelves of every specialist in diseases of the rectum, and these, together with many physicians who do not class themselves as specialists, will be glad to obtain a new and revised edition. The two Allinghams—father and son—have long been considered authority on this subject. Mr. Allingham, Sr., was the first to put forth a distinct treatise on diseases of the rectum, and his labors in this field have served to create this line of practice into a separate specialty.

Previous editions of this work have become exhausted, hence it was out of print and could not be obtained by those who desired to consult it. The present edition is like the last, with such additions and changes as were necessary to bring it abreast of the period.

For clearness of expression this work is famous. No one, for instance, need be in doubt as to the nature of fistula-in-ano after reading Allingham's description of it, or how to cure it after studying his method. The drawings, too, seem to explain or elaborate the text with an exactitude that is most agreeable. How can one

fail to understand the pathology and treatment of hemorrhoids after a careful examination of Allingham's illustration?

Another point to which we invite attention is the marginal references in this book. These make it possible to consult the text on a particular point in question without wading through pages irrelevant, thus economising time.

Finally, the paper and presswork are excellent, making it an agreeable book to read as well as consult. It will be a long time before Allingham's standard treatise will cease to be valued by physicians and students who desire to refresh their memories or to obtain ideas.

DIET FOR THE SICK. Contributed by MISS E. HIBBARD, Principal of Nurses' Training School, Grace Hospital, Detroit, and MRS. EMMA DRANT, Matron of Michigan College of Medicine Hospital, Detroit. Second edition, enlarged. Limp cloth, 16mo, 100 pages. Price, 25 cents, postpaid. Detroit, Mich.: *The Illustrated Medical Journal Co.* 1896.

This little book may be found useful by the home nurse, whose ordinary cook-book contains few recipes for invalid dishes. It also contains quite complete diet lists and many suggestions which nurses, trained or untrained, may profit by. Its value is hardly increased, however, by the recommendation in the body of the work of proprietary articles of invalid food, and the physician will scarcely approve of the advice so freely given as to the employment of a certain new remedy in the treatment of dyspepsia.

BOOKS RECEIVED.

System of Diseases of the Eye. By American, British, Dutch, French, German and Spanish authors. Edited by William F. Morris, A. M., M. D., and Charles A. Oliver, A. M., M. D., of Philadelphia, Pa. Volume I. Embryology, Anatomy and Physiology of the Eye. Octavo, pp. xvi.—670. With twenty-three full-page plates and 362 text illustrations. Philadelphia: J. B. Lippincott Co. 1896.

A Text-Book of Materia Medica, Therapeutics and Pharmacology. By George Frank Butler, Ph. G., M. D., Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, Chicago; Professor of Materia Medica and Therapeutics, Northwestern University, Woman's Medical School; attending Physician to Cook County Hospital, etc. Octavo, pp. 858. Price, \$4 net. Philadelphia: W. B. Saunders. 925 Walnut street. 1896.

The Practice of Medicine. By Horatio C. Wood, A. M., M. D., Professor of Therapeutics and Clinical Professor of Nervous Diseases in the University of Pennsylvania, etc., and Reginald H. Fitz, A. M., M. D., Hersey Professor of the Theory and Practice of Physics in Harvard University, etc. Octavo, pp. x.—1088. Philadelphia: J. B. Lippincott Co. London: 19 Henrietta street, Covent Garden. 1896.

A Practical Treatise on Medical Diagnosis. For the use of Students and Practitioners. By John H. Musser, M. D., Assistant Professor of

Clinical Medicine, University of Pennsylvania, Philadelphia. New (second) edition, thoroughly revised. In one octavo volume of 925 pages, with 177 engravings and eleven full-page colored plates. Cloth, \$5; leather, \$6. Lea Brothers & Co., Publishers, Philadelphia and New York. 1896.

A Treatise on Obstetrics. For Students and Practitioners. By Edward P. Davis, A. M., M. D., Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic; Clinical Professor of Obstetrics in the Jefferson Medical College of Philadelphia. In one octavo volume of about 600 pages with 217 engravings and 30 full-page plates in colors and monochrome. Cloth, \$5; leather, \$6. Lea Brothers & Co., Publishers, Philadelphia and New York. 1896.

A Text-Book of Diseases of the Nose and Throat. By Francke Huntington Bosworth, A. M., M. D. Illustrated with nearly 200 engravings and seven full-page chromo-lithographic plates. New York: William Wood & Company. 1896.

Transactions of the Medical Society of the State of Pennsylvania, at its Forty-sixth Annual Session, held at Harrisburg, 1896. Volume XXVII. Published by the Society. Wm. B. Atkinson, M. D., Secretary. Philadelphia: The Edwards & Docker Co., printers. 1896.

Transactions of the Medical Society of Virginia. Twenty-sixth Annual Session, held at Wytheville, Va., September 3, 4 and 5, 1895. Landon B. Edwards, M. D., Secretary. Richmond: J. W. Ferguson & Son, Printers. 1895.

A Text-Book for Training Schools for Nurses, including Physiology and Hygiene and the Principles and Practice of Nursing. By P. M. Wise, M. D., Medical Superintendent St. Lawrence Hospital; Editor of *The State Hospitals Bulletin*, etc. With an introduction by Edward Cowles, M. D., Physician-in-Chief and Superintendent of the McLean Hospital, Boston, Mass. In two volumes. G. P. Putnam's Sons, 27 West Twenty-third street, New York. 1896.

Practical Notes on Urinary Analysis. By William B. Canfield, A. M., M. D., Lecturer on Clinical Medicine, University of Maryland, etc. Second revised edition. The Physician's Leisure Library. Detroit: George S. Davis. 1896.

Literary Notes.

THE editors of *Mathews' Medical Quarterly* announce that with the January issue of that publication its name will be changed to *Mathews' Quarterly Journal of Rectal and Gastro-intestinal Diseases*. It is essential that the title of a medical journal should convey to the reader an idea of its contents, hence this change of name.

It is still the only English publication devoted to diseases and surgery of the rectum and gastro-intestinal tract, and the articles which will appear in it will be limited to these subjects. The *Journal* will continue to be edited by Drs. J. M. Mathews and Henry E. Tuley and published at Louisville, Ky.

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Original Communications.

BACK TO NATURE.*

By WILLIAM S. CHEESMAN, M. D., Auburn, N. Y.

NORDAU¹ says the upper classes of society are made up largely of "degenerates." That means, of persons who are neurasthenic, hysterical, neurotic. This condition, of which they are for the most part happily unconscious, he traces to causes inherent in modern civilisation—namely, the habitual use of tobacco, alcohol, narcotics; the deteriorating influence of residence in great cities; and the revolutionising of life by new inventions, increased railroad and ocean travel, and the multiplication of books, newspapers, letters, telegrams: in short, to nerve fatigue.

By way of confirming these opinions, Nordau searches modern literature and art for evidences of degeneration. It is there, he finds, that the hysteria of modern life most plainly gives itself away. So the poetry, and painting, and music of the day constitute the material of an unexampled clinic, and I know of nothing more humorous from one point of view than this diagnostic critique, in which the works of modern art, viewed from the novel standpoint of the specialist in nervous disease, are made to yield symptoms and stigmata. Nordau percusses poetry, and gets a cracked-pot sound; he auscultates the opera, and hears an exquisite "bruit du diable;" he puts painting into the circuit, and obtains the reaction of degeneration; and he is shocked by the exaggerated knee-jerk of the stage.

Now, whatever view we may take of this theory, I fancy that many of you, like myself, have felt in reading his learned work that there was much that was suggestive and salutary in its thesis, and have experienced the same lively satisfaction that I did, on realising that inability to understand some modern poets is rather

*President's address before the Medical Association of Central New York, at its twenty-ninth annual meeting, Rochester, N. Y., October 20, 1896.

a credit to one, since their hyperæsthetic and erotic obscurities are, after all, only stigmata of a simple, plain idiocy.

And after reading Nordau one can hardly avoid the question : Have Americans degenerated ? We cannot compare ourselves with the early settlers, but I confess to have long believed that as a people we are physically and nervously inferior to descendants of our common ancestry across the sea. I will not use the term "degeneration," for that sounds prognostically hopeless and irreparable. But I will say that as regards sturdiness of physique and nerve stamina, we have deteriorated.

This is rather a common view, and it may be worth while to inquire upon what facts it is based. They are largely impressionistic, and to but a small extent statistical, as is obviously, from the nature of the case, a necessity.

On landing here after a sojourn abroad, where the eye had grown accustomed to the British or German type, I have always been struck by the inferior physical appearance of our people. The men one meets look thin, and pale, and small. This impression depends for its clearness on one's previous habits of observation. To a person accustomed to sizing up men from the athletic standpoint it is vivid ; others who take no automatic note of men's build and carriage, it might escape entirely, and they will cavil at my statement. Yet I fancy the most untrained observer would note the difference, could he see on one side of the street such men as throng London, or Edinburgh, or Berlin, and on the other our countrymen.

It has become one of the commonplaces of observation that Americans are increasingly neurotic. Neurasthenia is significantly termed abroad "the American disease." This is the home of "rest cures," and no nation but ours writes and reads treatises on the Technique of Rest. Yet as a race we are incapable of the quietude of old-world life. A contented and continued abode in one place from generation to generation, without variety or change, is to us intolerable. Monotony begets insanity under our skies. The English race has ever shown itself the most enterprising in Europe, and on all the continents and most of the isles of the sea are its dominions. But behind them has stood the quiet, sedate, imperturbable mass of unchanging home life, of which the colonies are but the overflow and surplusage. Are our restlessness and instability tokens of like superabundant energy, or do they spring from the irritability of nervous weakness ?

But worse than all, the fertility of our race is falling off. It has long been a matter of general observation that large families of American origin were becoming rare. And statistics seem to bear out this impression. In Europe, generally, the average number of children to each mother is 4.47 (in 1876). Among our foreign-born population here it is in New York state 3.81, and in Providence², 3.60. Among American-born mothers it is 3.57 in New York, 3.09 in Providence. The average birth-rate of Massachusetts, Connecticut and Rhode Island³ in 1888 was 23.9.* In only two civilised countries was the birth-rate as low—namely, Ireland, 22.9, and France, 23.2; in the former as a result, universally acknowledged, of grinding poverty, and in the latter of causes engaging the alarmed attention of thoughtful and patriotic Frenchmen.

And this diminution of our birth-rate has occurred in the face of unsurpassed abundance of food and material wealth. Here, if anywhere, has what Malthus termed “the banquet of nature,” been lavishly spread before whomsoever would come. So that the general law that the amount of food regulates the increase of population has been plainly evaded here.

Doubtless many factors have united to diminish our fertility. It is a recognised law of economics that the birth-rate varies inversely as the increase of comfort and luxury and the distribution of property. People come to love ease and fear self-sacrifice. For this reason the marriage-rate has fallen steadily during the past twenty years in all the most civilised countries of the world.⁵

But the cause of sterility is not so much the avoidance of marriage as the avoidance of child-bearing after marriage. In France, for instance, the marriage-rate is 7.4 per 1,000 of population, which is not especially low.⁶ But the French birth-rate is the lowest in Europe, 21.9 in 1890.³ French economists explain this by social considerations entirely, such as the desire of keeping a small fortune undivided and of gradually raising the family in social importance. They recall how “social capillarity,” the attractive force of a higher social position, acts most strongly in a democracy. Wherever rank is fixed, so that none can rise above his caste, as in monarchical countries, men abandon themselves to careless reproduction. But in a democratic state “each social

*In Providence, R. I., the average number of children born from 1890 to 1895 inclusive was, by American mothers, 3.08; by foreign mothers, 3.54. Providence is selected because of the exactitude of the records kept there.

molecule, having secured the means of existence, struggles to raise itself, impelled by a real force of social attraction." The greater this force, the more sternly are enforced those sacrifices and restrictions which will enable the man to satisfy his ambition. "The birth-rate is, therefore, in inverse ratio to social capillarity."³

Yet French writers urge the naturalisation of 50,000 to 100,000 aliens annually in order to improve the reproductive power of the nation,⁶ which suggests that their real views of French infertility are more serious than they confess.

Many would explain the infertility of the American democracy in the same way. But if we admit the partial sufficiency of such causes to account for our lessened birth-rate, we cannot forget that sterility of the best stock of a nation, however produced, is a real and great evil, and that it has always been notoriously characteristic of, and contributory to, the decadence of races.

We need not look far to explain any admitted race deterioration in the United States. Man, like other animals, becomes, by long selection and inheritance, adapted to his physical, geographical, social and intellectual environment. Change this in any respect, and readaptation by eliminations and survivals must ensue. In the first place, ability to resist disease, notably phthisis, is lessened. Pruner states that at Khartoum consumption attacks negro captives and Arabs whenever they lay aside their nomadic habits and live in houses. The same has been observed in regard to our Indians. Icelanders emigrating to Copenhagen suffer at once, and its frequency among the Irish in America has often been noted. And in the second place, a change of life conditions may cause sterility. The breath of civilisation seems to blight the fecundity of savage races; witness the withering away of the native Australians and some of the South Sea Islanders. Alterations of climate are very unfavorable to fertility and vigor of offspring. Volney states that "neither the Mamalukes, who were a Caucasian race, nor the Turks, who are Mongolians, unless they married native women, which the Mamalukes never did, could continue their race in Egypt, all their offspring perishing in the first or second generation."⁷ After much search the late Mr. Twining was unable to find anywhere in India a sample of the third generation from unmixed European stock.

The change from Europe to North America is not comparable in severity to that from Europe to the tropics, but that the climatic conditions here differ radically from those of Europe

scarcely needs comparison of temperatures and rainfall.* All who come feel it. English athletes uniformly fail to do their best here, and ruddy immigrants soon lose their vigorous exterior and approach our thin and nervous type.

It seems, therefore, no exaggeration to assert that the American race has not yet so fully adapted itself to our barometric and thermometric vicissitudes, is not yet so thoroughly *acclimated* as to reproduce itself vigorously under civilised conditions, like the parent races across the sea. It is no objection that it settled here 300 years ago, and ought, in all conscience, in that time to feel at home; for, as a matter of fact, the descendants of the original settlers are so few that they enroll themselves in societies, to emphasise their own regrettable scarcity. The bulk of the race has not lived here over 100 years.

And in that period it has conquered a new empire, competed with those of the old world, and suffered in a greater degree than they all the nervous excitements attending changes of life due to new inventions, of which Nordau makes so much. The result is an intellectually keen, nervously irritable race, devoting too much energy to affairs to have much left for propagation. For "reproductive activity is weakened by every muscular and nervous work,"³ which is but another statement of the views of Spencer and other economists, that intellectual curtails reproductive energy.

Just here someone will be saying to himself: "This sterility argument must surely be overdone. Think of the families of the Dutchmen and Puritans and pioneers. New conditions did not greatly interfere with their propagating themselves."

I reply: Because they lived close to nature. In any deterioration which we may have suffered, the artificialities of civilisation have borne a part. So that in American nervousness and lessened fruitfulness I read the admonition: Back to nature.

There are three phases of American living contributing to lowered racial vitality, which we as physicians can do something to change:

1. *Neglect of Physical Exercise*.—Excepting the farmers, how much exercise does the average member of society take during a year? Consider the shop-keepers, clerks, bankers, office-holders, manufacturers, lawyers, deacons, doctors, Sunday-school superin-

*But the comparison may be interesting. In 1888, the London temperature range was from 18.4°, the lowest winter, to 87.7°, the highest summer record, while the temperature of New York City was from 0° to 96°.

tendents and their wives, and how many of them have any systematic exercise worthy the name? Scarcely from one year's end to another do they feel the glow of pulsing blood or the expansion of deep breathing. This they will explain or excuse, but the fact remains. That nerve-weariness, dyspepsia, irritability, misanthropy, are cured by exhilarating out-door activity, they have never found out; and perhaps their physician hasn't told them, since he has never found it out himself; for, as Bacon has said, "There is a wisdom in this beyond the rules of physic." So they medicate and mope. They ridicule athletic games as boyish. They drive, but never ride. They pay attention to the dinner-bell, not to the dumb-bell, and the club of their acquaintance is not the Indian club, neither is their bar the horizontal bar. In short, it is not uncharitable to say that the lives of the bulk of our middle-aged population are, when viewed from the purely physical standpoint, contemptible. And nature avenges herself in undeveloped limbs, weak hearts, irritable nerves and degenerated blood-vessels. The logical outcome of physical inactivity, nerve-strain, overplus of food, and perhaps wine at dinner, is, in our climate, neurasthenia, or arterio-capillary fibrosis. Nerve exhaustion and early cerebral hemorrhage do a thriving business among the pillars of society and the church.

But a curious fact of history is what may be termed race instinct. After decimating wars, or plagues, or famines, marriage and birth rates rise till the losses are made good. When manners swing dangerously far in any direction, there follows a reaction toward a safer mode. The younger generation are, by virtue of this instinct, betaking themselves to out-door athletics. This "craze" has held its course undeterred by the ridicule of the press, or the fulminations of family doctors. I am not intending a lengthy examination of this movement,* but simply to point out its sociological significance. It is more than a passing fad. It is the intuitive reactionary effort of a new generation after higher physical power. Viewing it from this standpoint, I am sure our profession will be wary of repeating some of the humbug which it has published against athletics in general, and the bicycle for women in particular.

2. *Life in Great Cities.*—One of the prominent movements of the day is the growth of towns. These centers suck in popula-

*Those who care to do so can find one by me in the *Reference Handbook of the Medical Sciences*, Vol. II. Article: Exercise.

tion as a magnet draws iron-filings. Upon the race the effect of this centripetal drift is distinctly injurious. In the first place, overcrowding increases mortality. With such mathematical precision does the death-rate follow density of population, that Dr. Farr constructed a formula by which, the number of inhabitants to a square mile being given, he could predict the mortality. This increased death-tribute of cities is, as we all know, paid largely by children under five. City environment is thus immediately fatal to a piteously large percentage of young children, and how many survive infantile illness to carry its traces in a puny childhood, no tables are prepared to show.

More than all, no statistics can take account of the depressing effect of great city life on the general vitality and nerve tone of children and adults. Its mark on the vicious youth and sad, precocious childhood of the slums is clear ; but even in better neighborhoods, who can doubt that for children the noise and hurry and crowd, the devitalised and vitiated air, the monotonous miles of lofty walls and wearying adamant under foot, the crowding of dwellings, the want of playground, induce unhappiness, irritability and nerve wear ? Among adults the rush and worry of competition produce the severe neuroses.

But I shall be reminded that one sees no more blooming specimens of childhood, or finer examples of adult health, than are met with on the aristocratic squares of our great towns. The fact, however, is, these people do not really live in their city houses. They sojourn there in winter. Europe, the sea, or the mountains claim them in summer, and southern resorts are peopled by them every spring. It is not city life on such terms that I have in mind.

Yet even for the poor, civilisation seems to be working out relief. Improved communications is the feature of our age. And the question here is one of transportation mainly. If the man can easily and quickly reach his work, cheaper rent, purer air, flowers, fields, and a sky await his family outside. Railroads, the trolley and the bicycle, are bringing us in sight of the day when cities shall be centers for business, learning, pleasure, art, but not for great masses places of abode.

3. *The Postponement of Marriage.*—The Registrar-general's report for 1886 shows a marked difference between the classes of society as to the age at which marriage is contracted.⁵ Among miners and artisans men marry at from 24 to 25 years, women from 22 to 23 years, while the professional and independent classes

marry on the average five to seven years later in life. Among the more refined and intellectual types there is, therefore, a systematic postponement of marriage.

The explanation is plain. Rich young men are often engrossed in pleasures of a selfish, if not more doubtful, character, and do not settle down until wearied of them. And young professional men with their way to make, have not the means to marry as soon as their wishes might prompt; while hosts of others decline to marry till they can afford a certain style and standard of establishment—which often ends in their not marrying at all.

The effect of this wilful or enforced delay is doubly disastrous. It robs society of the increase of its most valuable classes during four to seven years of their best physical and reproductive power. As regards numbers and permanence, these classes, therefore, discriminate against themselves. They plot their own extinction by delivering the multiplication of the race over to the lower orders—a duty to which these latter are proverbially faithful. Where universal suffrage rules, this means abdication of government by the people of education and property, and its assumption by low class majorities.

On the individual the effect is also evil. Before an audience of physicians I need do no more than generalise on this point. In our experience bachelorhood means so often irregularity of morals and diseases attendant thereon, or neuroses from sexual suppression; while late marriages of such individuals are so apt to result in infection and sterility of their wives; that we, as a profession, hold somber views regarding the salubrity of the single state.

And this impression is justified by Bertillon's statistics, showing that marriage exercises a beneficial influence on the longevity of men and women. According to his tables, the mortality per 1,000 is increasingly heavier with advancing age among the single, till from being four per 1,000 greater at twenty to twenty-four, it becomes fourteen per 1,000 greater at sixty-five to seventy.⁵

Probably now you are asking yourselves: How are doctors to help matters? Can we inject the love of physical activity with a hypodermic syringe, or draw people out of great cities by an aspirator, or remedy the evils of delayed union—when matrimonial—by a surgical operation? Probably not, but a physician's influence, even his best and greatest, does not end when he signs a prescription, or closes a wound. In the few moments

after his duty to the patient is done, and before his visit ends, his highest usefulness may begin. Then his opinion and advice are sought on matters not related directly with sickness.

Then he has his opportunity to mould public opinion. It is in that confidential interval when parents lament the wheel's supposed injuriousness to their daughter's health, or the early entanglement of their son's affections, or when the young man of small means is debating the question of a home—it is then that the doctor can often be of service to his country.

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ACUTE PLEURAL EFFUSION IN CHILDREN.¹

By J. C. CLEMESHA, M. D., L. R. C. P., Lond., M. R. C. S., Eng.

LITTLE is said on this subject in the ordinary text-books on medicine, it seldom forms the subject for a clinical lecture in the hospitals of our medical colleges, and I fear the average graduate is sometimes seriously nonplussed when a case of this kind is first brought to his notice for diagnosis and treatment.

Dr. West, the founder of the first children's hospital, remarks, in his work on Diseases of children: "There are no cases in which it has happened to me to have to screen the mistakes of others so often as in cases of pleurisy and empyema."

It is a more common disease in childhood than is generally supposed, yet its presence is often overlooked, or the existence of mischief in the chest referred to a wrong cause. In some cases the condition of the chest is overlooked, the trouble being referred to the abdomen or brain. And there are certain reasons why mistakes do occur. The subjective and objective symptoms of this disease are, to some extent, peculiar in early life and serve to obscure the real nature of the affection, unless one be on his guard.

1. Read at the Buffalo Academy of Medicine, October 15, 1896.

There is also the great difficulty met with in making a sufficiently complete examination of the chest in early life, to enable one to accurately appreciate the physical signs existing, and thus a precise diagnosis is often difficult to arrive at.

I purpose, first, to dwell on the points in which pleurisy in children differs from the same affection in adults, and afterward to point out and differentiate the chief diseases with which pleurisy in children may be confounded. In ordinary cases of acute pleurisy with effusion in adults, the diagnosis is comparatively easy: the pain in the chest, catching the breath, with fever and cough, and increased frequency of respiration, the friction sound, some impairment of movement and deficiency of vesicular murmur in the affected side in the first stage, followed, as the effusion increases, by bronchial breathing broncophony, egophony and eventually ending in silence; absence of breath sounds, too, beginning at the lower part of the lung and extending upward as the effusion fills the pleural sac.

The percussion note, at first dull, and higher in pitch, ending in complete dulness or flatness with a sense of resistance and solidity to the stroke, the dulness changing with change of position, the absence of vocal fremitus, diminished motion and increased measurement of the affected side, with the effacement and perhaps bulging of the intercostal spaces and the displacement of the adjoining viscera, all combine to make a diagnosis with little risk of error. In children, however, many of these symptoms may be absent, or if present, from the difficulty of eliciting information from the little patient, are not discovered.

Pain in the side is more frequently absent in children than in adults, and when it exists we cannot usually obtain precise information from the patient as to its locality. In some cases the pain may be referred to the abdomen and vomiting and purging may be the principal symptoms at the onset. Cough is commonly present and gives rise to pain, but in some cases the cough may be slight and may remain absent throughout the whole course of the disease. Or, again, the cough may be of the most violent and convulsive character, rivaling in severity that of whooping-cough.

The predominance of nervous symptoms in children is marked in some cases and the disease is often ushered in with intense headaches and screaming, attended by vomiting and purging, symptoms which divert the attention from the chest. The temperature in pleurisy at the onset may reach as high as 105° , remaining only a

few days and then gradually falling until absorption has taken place, when it becomes normal. If the effusion becomes purulent, the temperature will again rise and remit— 100° in the morning, 104° at night, until the pus is evacuated. The pulse is very quick and hard at the commencement; in cases of great effusion, small and weak. The urine is scanty, of high specific gravity, dark in color during the height of the fever. As the pleuritic effusion is absorbed, it becomes more abundant, lighter in color and of a lower specific gravity. Even in mild cases, there is considerable loss of strength and pallor. In chronic cases, emaciation occurs to a marked degree. Vomiting, a rare symptom in adults, occurs in about half of the cases as an early symptom in children.

In secondary pleurisies, as after scarlet fever, the symptoms may be only an increase of those of the previous disease, especially as in these diseases there may have been increased rapidity of breathing and a few râles in the chest.

Physical Signs.—In regard to physical signs, the diagnosis is rendered more difficult from the fact that some of the signs, available in the adult, are less available or absent in a child, and thus to the inexperienced or careless, giving rise to error.

Vocal fremitus and vocal resonance are much more difficult to obtain in children, and information derived from these signs is not valuable. On inspection will be seen feeble expansion of the affected side and as the effusion increases widening and obliteration of the intercostal spaces. Displacement of the heart to the right or left will be found in cases of extensive effusion. The liver and spleen may also be pushed downward, but this is difficult of detection and need not be looked for with any certainty, in that the chest wall yields more easily in the child and the force of pressure is not expended to anything like the same extent as in adults, in displacing the heart and forcing down the diaphragm and abdominal viscera. It is, however, a mistake to say that displacement of viscera never takes place in children.

In percussion we have most valuable diagnostic information, but unless the chest be full of fluid there is not absolute dullness, and we must not look for that flat sound that we find in pleurisy of the adult. The apex of the affected side will give a high pitched note and pleurisy at the base is the most common cause of hyper-resonance at the apex. Persistent dullness on percussion, even with fair respiratory murmur, should always excite suspicion of effusion into the pleural cavity and the aspirator should be used. Auscul-

tation, as a means of diagnosis, cannot be relied upon and may give rise to false conclusions. The friction sound, if present, owing to the difficulties in auscultation, will seldom be heard. It is common to find in the pleurisy of adults complete silence when there is much effusion; while in children, on the contrary, I think the rule is that modified respiratory sounds are heard. In my limited experience tubular or bronchial breathing was found over the affected side. In fact, so constant is tubular or bronchial breathing in this disease that Allbutt says:

"Its existence in the child with broncophony should lead us to expect fluid." But we may not even have this sign, for in one case that I saw there was at times fair vesicular breathing.

Moreover, there may be breathing vesicular in quality, but deficient in quantity, while the respiratory murmur on the healthy side may be so exaggerated as to mislead the practitioner and cause him to treat the wrong lung. This happened in a case that came under my father's notice and the physician who made the mistake was not a young practitioner either. I mention this to emphasise the difficulties of diagnosis.

On account of the smaller dimensions of a child's chest and thus a thinner layer of fluid, there is often with the bronchial breathing increased vocal resonance, a fact which renders the diagnosis still more difficult. But as I have before stated, vocal resonance is difficult to obtain and as a sign cannot be relied upon.

Diagnosis.—It may be considered an axiom that in all doubtful cases of acute diseases in children a careful examination of the chest is very important. Without it errors will surely occur. Especially in pleurisy there is so much difficulty in discovering the exact condition of the lungs that a superficial examination of the chest will result in a mistaken diagnosis.

In my remarks on diagnosis I refer to purulent pleurisy only, for except there be heart displacement or position, dulness and absence of breath-sounds, I think the diagnosis must be doubtful. In all cases that I have seen and in those coming under my father's notice, which have been verified by the hypodermic needle, there has been purulent exudation. Perhaps the serous effusion is rapidly absorbed, therefore giving no cause for further exploration and probably set down as pneumonia.

The chief diseases with which acute pleurisy may be confounded are pneumonia, phthisis, acute hydrocephalus, typhoid fever, hydrothorax, pericarditis and abdominal affections. The

first three are the commonest causes of error and to these only will I refer.

Pneumonia.—The onset of pleurisy very much resembles that of pneumonia, and indeed, when we remember that according to some authorities pneumonia, in a large proportion of cases, precedes purulent pleurisy, it is not surprising that errors in diagnosis are made.

Sutherland states, *Lancet*, 1894, that out of seventeen cases of double empyema, fourteen, or 67 per cent., were preceded by lobar pneumonia, one by broncho pneumonia, and only two were regarded as primary, and Adam states that out of thirty-two cases of unilateral empyema 71 per cent. were preceded by pneumonia. Hood in *Lancet* of August, 1894, in a clinical lecture, states :

If in what is apparently a pure uncomplicated attack of acute lobar pneumonia the critical stage is absent and resolution does not take place in reasonable time, it behooves us to examine the chest with the most conscientious care. Of all the secondary conditions leading to the absence of crisis none is more common than effusion, and if we are not fully alive to this complication, it is easy to drift complacently into error with regard to the true pathology of the case. The fever does not fall, the lung does not resolve, day after day it is watched and the dulness and tubular breathing remain. Here the attack has commenced with all the characteristic symptoms of acute pneumonia. There have been no symptoms denoting that with the subsidence of the pneumonia inflammation, there has been a gradual steady effusion poured out into the corresponding pleural cavity.

Goodhart speaks in a similar manner as follows :

In pure lobar pneumonia we may confidently expect the duration of the disease to be short. In purulent pleurisy, on the contrary, there is no limit, no tendency to recovery unless the pus be evacuated. The patient goes on emaciating and this fact alone imperatively demands the aspirator in order to clear up the doubtful diagnosis. Nor should we be satisfied with aspirating the base of the lung, as the pus may be encysted and in various parts of the chest.

Goodhart reports three cases in which fluid was only found below the clavicle. Dr. Squire reports a case of pyothorax limited to the upper lobe of the left lung, following a pneumonia, and also mentions in his paper having seen several cases of empyema following a pneumonia. In one of the cases coming before my notice the pus was encysted and the opening made in the subclavicular region on the left side. Dr. Addison, in his twenty-seventh aphor-

ism, writes : "When serous effusion is very considerable, giving rise to unequivocal broncophony, tubular breathing, want of resonance and vocal vibration, physical examination has repeatedly led to a mistaken belief that these signs resulted from a pneumonia or other consolidation of the lung;" and I have no hesitation in affirming with equal confidence that similar mistakes may occur even if the effusion be purulent.

The onset of pleurisy sometimes resembles very much the onset of cerebral mischief, so much so that two of the cases I have seen had their heads shaved and blistered. In one of the cases there was stupor, in the other delirium. There may be vomiting, headache and screaming, and the cough may be slight or quite absent. Hurried breathing would be explained by the fever, and unless the chest be carefully examined an error in diagnosis will be made. However, the onset of pleurisy is usually too acute and probably has not been preceded by loss of flesh, capricious appetite and general symptoms of failing health. In these cases careful examination of the chest clears up the case.

Empyema may be wrongly diagnosticated as phthisis, in cases where the pus is retained in the pleural cavity for some time and symptoms of emaciation, hectic fever and cough and the like are most prominent. With regard to physical signs, phthisis in children often attacks the base of the lungs, in adults the apex. Where the onset simulates abdominal mischief, the child may have pain in the abdomen or over the liver, together with vomiting and purging. Careful examination of both chest and abdomen is needed to decide which is the affected region.

From what I have said I think it will be inferred that in these obscure cases of acute chest disease in children, the only positive means of diagnosis is the use of the aspirator, the ordinary hypodermic syringe answering the purpose very well, a large needle being used. As already stated, exploration may have to be made at different points; usually, however, this is not necessary, as the effusion is in the lower part of the pleural cavity.

Terminations.—Where the effusion is serous, pleurisy in children is not a serious disease and generally clears up rapidly. And here I should like to ask, Is serous pleurisy in children often met with, and how is the diagnosis made possible? Does serous pleurisy become purulent, or is the effusion purulent from the beginning?

Goodhart says: "But while allowing this to be possible, I

know little to support it and, indeed, clinical facts all seem to me to prove that it is quite rare, and in no case, to my knowledge, where aspiration has been employed was the fluid other than pus. Jacobi has found pus on the fourth day. Circumscribed collections of pus in the pleura are not so uncommon as might be supposed from the space devoted to the subject in works on diseases of children. The termination of an empyema, if the pleural sac be not drained, will probably be disastrous. According to some writers absorption may occur, but this, I think, is exceedingly rare. The pus may make its way through the chest walls or bronchial tubes and be coughed up, but rarely into the abdominal cavity. The most common clinical course of an empyema, unless the pus be evacuated, will resemble that of phthisis cough, emaciation, hectic diarrhea and death.

When, however, the pleural sac is opened and the pus drained off, the termination is in recovery in a large proportion of cases in from five to ten weeks after operative procedure, leaving the lung unimpaired and the child soon convalesces and becomes robust and hearty, even where the emaciation has been extreme and the disease protracted.

In speaking of treatment, my remarks apply only to empyema, for serous pleurisy, if diagnosticated, calls for no special treatment differing from that in the adult and the effusion is usually rapidly absorbed. The treatment should properly come under the surgical section, for the medical treatment of empyema requires but brief notice, the indications to be met with as they present themselves, and I cannot emphasise too strongly the utter uselessness of trusting to medical treatment alone in such cases.

The duty of the medical practitioner is to explore, when in doubt; this in ordinary private practice may not be so simple as it appears, for the parents invariably oppose anything like operative procedure in the early stage of the disease, and it is only when they see the patient going from bad to worse that consent is given. The physician, too, may not be positive enough at first, the existence of doubt as to diagnosis and the occasional favorable indications in the course of the disease combine to delay the all-essential operation.

In using the exploring needle I think it is well to be prepared to proceed at the same time with incision and drainage if pus be found; and in private practice it is perhaps better to give a little chloroform before proceeding to aspirate, as the child will be

sure to scream and resist, and it may be needful to make a number of punctures before finding pus, especially if it be encysted. If pus be found, proceed at once to the radical operation of incision and drainage. The removal of a portion of a rib, or ribs, is rarely necessary in the case of children. The point of election for incision is the sixth or seventh intercostal space in the posterior axillary line. The incision through the skin need not be a long one, as some advise, and the operation is completed by pushing into the cavity a pair of dressing forceps and then opening the blades wide enough to make the opening sufficiently large to permit the introduction of the drainage-tube. The tube should be as large as can be got in, of soft rubber and fenestrated. I speak of the tube being soft, as in one case that came under my notice the tube used was somewhat rigid and caused troublesome cough and irritation. The tube may be retained in place by passing a strong silk thread through the portion external to the chest and tying it round the body, fixing it in several places with adhesive plaster. The tube, with shields, as depicted in Hare's system of therapeutics, should not be used, as it is impossible to keep the parts under the shield clean. The tube may be covered with borated cotton, or finely picked oakum, which will absorb the discharge.

The dressing should be changed twice a day at first and afterward from time to time as required. There seems to be no rule as to the length of time the tube should remain in. One writer advocates removal at the end of two weeks, even when the discharge is free, holding that after the pressure is removed absorption of the remainder of the pus will take place. From cases noted I am of opinion that from four to nine weeks would be nearer the average.

Aspiration may be practised in cases of infants and very delicate children, or when the pus is in small quantities, with good results. Bowditch, Barlow and Goodhart report good results in such cases.

The practice formerly advised of washing out the pleura with some antiseptic solution has now been abandoned as not only useless but fraught with danger, and it certainly may cause considerable pain and irritation. Should the pus, however, be foul-smelling, antiseptic injections might be used, but even when this is the case, it is not absolutely necessary, as the discharge will sometimes become sweet as the drainage goes on. The exuberant granulations which may spring up round the tube sometimes alarm

the friends, as also the occasional eczematous condition of the skin, but need give no cause for alarm, as the condition disappears with removal of the cause.

382 WEST FERRY STREET.

BREATHING AND BICYCLING.

THE ILL EFFECTS OF MOUTH-BREATHING UPON THE THROAT AND LUNGS, AND THE IMPORTANCE OF FREE NASAL RESPIRATION IN THE EXERCISE OF WHEELING.¹

By JOHN O. ROE, M. D., Rochester, N. Y.

THE function of respiration is one of the most important, if not the most important, of the vital functions over which man in any degree has control. It is, therefore, the one that is most easily and most frequently perverted by pernicious habits.

The subject of faulty breathing, however, is not a new one, and its ill effects are clearly recognised by those who have given the matter much attention. Those who do not understand its importance, we, as medical men, should instruct, and as Sidney Smith has well said in regard to any new discovery, "say it so long and so loud as to compel mankind to hear us."

Mouth-breathing in every instance is followed sooner or later by more or less ill effects, but these ill effects are much sooner produced when the person participates in active exercise, which greatly accelerates the action of the heart and lungs, than when in a quiescent condition; and in no athletic exercise are great demands more frequently made on these organs, and the ill effects of mouth-breathing more pronounced, than in bicycling.

This observation is made from the large number of persons who as patients have complained to the writer of the distress which they experienced from dryness and irritability of the throat while riding their wheel, caused by mouth-breathing, necessitated by obstructed nostrils. Two of this number were physicians, and one a D. D. S., who were obliged to limit their use of the wheel on this account.

The normal capacity of the nasal passages for the transmission of air is equal to that of the larynx when widely opened. There-

1. Read before the Medical Association of Central New York, October 20, 1896.

fore, provided there are no obstructions in the naso-pharynx and fauces, such as adenoid growths or enlarged tonsils, there should be no necessity for opening the mouth to breathe during active exercise.

The capacity of somewhat contracted nasal passages may be, during the ordinary habits of life, adequate for the transmission of sufficient air for the perfect aeration of the blood; but during active physical exercise the worn-out material of the tissue is so greatly increased, that an unusually large amount of oxygen is required in order fully to oxygenize this effete material which is taken up by the blood. Therefore, if sufficient air cannot pass through the nasal passages for the proper oxygenation of the blood, it necessarily must find ingress through the only other avenue left—the mouth.

In such cases, then, the greater the amount of air breathed the greater is the amount which of necessity passes through the mouth. Thus in a short time the habit of mouth-breathing is acquired, and sooner or later the person will be found nearly all the time, particularly when asleep, breathing through the mouth. The nose, like a disused roadway which soon grows up with weeds and bushes, becomes still further occluded by thickened and engorged tissues, from lack of proper use.

Man was intended to be a nose-breather only. This is clearly shown by the functions which the nose performs during respiration. It is also shown by the fact that the first inspiration of the new-born babe is through the nostrils; and if these passages are closed, the breathing is very greatly embarrassed, even though the mouth be opened. Cases are known of new-born infants suffocating because the nostrils were occluded. That the air enters the nostrils before it reaches the lungs was shown by Cassels.² He demonstrated this fact by cases in which he found air in the tympanic cavities of still-born children when no air could be found in the lung tissue.

Not only is man a nose-breather, but also the lower animals—many of them by necessity, as they are not provided with communication between the mouth and the respiratory passages. This we find to be the case with the solipeds.

There are several important functions which the nose performs in fitting the air for respiration. These are: (1) it serves the purpose of a filter for arresting foreign substances, such as dust and germs; (2) it imparts moisture to the air; and (3) it modifies the temperature of the air, adapting it for respiration.

(1). That the nose performs the functions of a filter is very clearly shown by the large amount of dust and other foreign substances found in the secretions when the person has been inhaling air laden with these substances. It is also shown by the large number of germs deposited in the nose and not found in the air-passages below, when the air is respired through the nasal passages. St. Clair Thompson and Hewlett,³ of London, have shown by their researches that at least 1,500 microorganisms are inspired every hour, while the number in the average London atmosphere sometimes rises to 14,000. As has been shown by Tyndall,⁴ Gunning,⁵ Strauss and Dubreuil,⁶ the expired air is, nevertheless, practically free from them. In the experiments of Strauss, of 600 microbes contained in the air inhaled, a single one only was expired. Lister⁷ has observed, in connection with the treatment of pneumothorax, that microorganisms inhaled do not reach the air cells, or the pleural cavity, if inflated with air which has found its way through a wounded lung, while Hildebrandt⁸ shows by his experiments that they are arrested in the nasal passages. This is also confirmed by St. Clair Thompson and Hewlett,⁹ by the examination of the tracheal mucus from recently killed animals, which is always found sterile. Furthermore, these organisms are mainly arrested in the anterior portion of the nose, since the vibrissæ of the vestibule are found swarming with them, while the deeper portions of the nose are comparatively free from them.

The scarcity of microorganisms in the deeper portions of the nose is also shown by St. Clair Thompson and Hewlett to be due, first, to the active expulsive powers of the ciliated epithelium of the mucous membrane, which has the power to move particles along on its surface at the rate of 25 millimeters per minute; and, secondly, to the special properties of the nasal mucus, which renders it an unsuitable soil for the growth of microorganisms, and hence does not favor their multiplication.

(2.) It imparts moisture to the air. It is estimated by physiologists that during twenty-four hours about 5,000 grains of water are taken up by the respiratory current of air in its passage through the respiratory apparatus. Now, Bosworth¹⁰ maintains that the greater portion of this water is derived from the nasal passages, for the reason that the vascular tissue covering the turbinated bodies is the only tissue capable of furnishing it, and that the mucous membranes of the lower air-passages contain mucous glands only, which secrete mucus alone. Numerous experiments

have been made which confirm these observations. Aschenbrodt¹¹ found that each five liters of air passed from an air respirator into one nostril and out of the other, took up 18 grammes of water. By computing the result for twenty-four hours we have 5,000 grains of water, the amount found by other experimenters in the air expired during twenty-four hours. This large amount of water is therefore imparted to the air during its passage through the nose.

The amount of water given off by this vascular tissue is furthermore controlled by the vasomotor nerves, which regulate the supply according to the varying degrees of humidity of the air respired.

(3). The modification of temperature that takes place in the nose is especially important when the person is subjected to extremes of heat and cold. Air on passing through the nose is brought very nearly to the bodily temperature, regardless of the temperature of the air before inhalation.

The heating power of the nasal passages was also ascertained by Aschenbrodt with an apparatus specially constructed for the purpose, in a manner similar to that in which he showed the amount of watery vapor imparted to the air as it passes through the nose. Air made to pass in through one nostril and out the other, the passage to the pharynx being closed, was found, in the different experiments, to be raised to a comparatively uniform temperature of from 86° to 92.3° F. All these experiments regarding the moisture and heat have been confirmed by Kayser¹², Bloch¹³, and Greville Macdonald¹⁴. The latter also showed that air at an exceedingly high temperature, as at 140°, is reduced to the uniform temperature of 92° on passing through the nose alone.

With a knowledge of the important functions which the nose performs in purifying and modifying the air in fitting it for respiration, the injurious effects of mouth-breathing upon the throat and lungs can very readily be understood. Air passing directly to the lungs through the mouth has no filter by which the dust and germs are removed, nor is the air modified by having moisture and warmth imparted to it. In consequence of this, dryness of the pharynx is soon produced and the intractable disease termed pharyngitis sicca is engendered. The larynx becomes irritated, hoarseness and coughs are induced thereby, and a general catarrh of the throat and bronchi is caused. These conditions, extending into the deeper air-passages, soon produce an excellent feeding-ground for bacilli to develop, and consumption is not the infrequent result.

Moreover, mouth-breathing gives a peculiarly vacant expression to the countenance and the open mouth of the mouth-breather is so conspicuous that already it has come to be recognised by the laity and commented upon by the press as the "bicycle mouth," owing to the frequency with which it is seen among bicyclists.

These evil effects of mouth-breathing are not, however, confined to cyclists¹⁵; but it is equally injurious to all who from carelessness or from necessity, by reason of the nostrils being narrowed or obstructed by diseased conditions, it becomes a habit or practice. When this condition of mouth-breathing exists, however, the inhalation of a large amount of air, which is necessitated when active exercise is participated in, as in wheeling, accentuates the ill effect of this perverted respiration, and to a great degree lessens the benefits derived from this splendid exercise. Likewise, and as the natural means of affording relief from these more or less dangerous consequences, there is emphasised the importance of giving proper attention to the nasal passages and rendering them free and unobstructed.

Respirators worn over the mouth, so often recommended a few years ago to patients suffering from throat and chest affections, have been abandoned since the functions of nature's respirator, the nose, have been more fully understood.

It is also a well-known fact that the endurance of athletes or persons engaged in any active exercise, other things being equal, is proportionate to the freedom of respiration through the nose and the proper oxygenation of the blood.

The reason that we direct our warning especially to cyclists is that cycling is so nearly universal at the present time as to render it the principal mode by which exercise is taken, and therefore the ill effects of mouth-breathing are most often noticed among wheelmen. It is estimated that four hundred thousand in Great Britain and over a million in this country participate in cycling. The larger the number, the more urgent becomes our duty to warn them of the evil consequences of mouth-breathing, and to teach them the importance of obeying Catlin's injunction, Shut your mouth and save your life!

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 15. Public speakers, singers and persons who use their voice much, and who, while using it, carelessly inspire through the mouth, instead of through the nose, suffer in like manner from irritation of the throat and larynx from this cause. The disease termed clergyman's sore throat more often results from this cause rather than from the use of the throat, as commonly supposed. All persons during conversation, laughing and the like, take in more or less air through the mouth without detriment, but excessive and prolonged breathing through the mouth will, sooner or later, in every instance, produce its ill effects on the throat and the respiratory organs below. The general health suffers also in a corresponding degree from the insufficient amount of air inhaled by mouth-breathers.
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- 28 NORTH CLINTON STREET.

MELANO-SARCOMA OF THE FEMALE URETHRA— URETHRECTOMY—RECOVERY.¹

By CHARLES A. L. REED, A. M., M. D.,

Gynecologist to the Cincinnati Hospital.

THERE is, I am sure, no occasion to apologise for bringing to the attention of the association the details of a case of melano-sarcoma of the female urethra; a case which, so far as a reasonably comprehensive research of the literature indicates, is the first of the kind to be placed upon record. Sarcoma of even the ordinary varieties, involving the urethra, are exceedingly rare, there being, according to Ehrenderfer,² but two upon record—namely, one by Biegel,³ in 1875, the other by Ehrenderfer himself, in 1892.⁴ In neither of these cases, however, were melanotic features the distinguishing characteristics. I mention this fact not to emphasize my priority in either the observation or publication of this condition—a matter of no essential importance—but to indicate the extreme rarity of the condition manifested in the following case:

Mary E. Y., *æt.* 64: single, was brought to my private hospital by her family physician, Dr. Joseph Morris, of Columbus Grove, Ohio, December 3, 1895. The patient had had no serious previous illness. There was no history of tuberculosis or syphilis in the family. The virginal condition of the genitalia precluded the supposition of venereal

1. Read at the ninth annual meeting of the American Association of Obstetricians and Gynecologists at Richmond, Va., September 22-24, 1896.

infection of any character. Her general health was good, although there was some emaciation about the neck and breasts, the latter of which were flabby, changes no doubt incident to age. Careful examination revealed no diseased conditions about either the lungs or heart. Careful palpation and percussion of the abdomen yielded negative results. There was no complaint of disturbance of either the gastric, renal or other functions. The urine was normal in color and quantity and had a specific gravity of 1.014. About eight months previously, *i. e.*, in April, 1895, she began to notice some pain, accompanied with blood on micturition. This was shortly followed by a more or less constant pinkish discharge from the genital fissure. The self-examination which followed revealed a tumor at the meatus urethræ. This tumor continued to increase in both size and hemorrhagic tendency until she was prompted to consult Dr. Morris, who curetted the neoplasm thoroughly and treated it with styptics. This brought apparent recovery, which endured but for only a short time, when the mass reappeared with granulations of greater exuberance than previously. The patient, however, declined to accept further operative interference until she was brought to me. At that time I found a black, lobulated and eroded mass, about 3 c.m. in diameter, separating the labiæ majora. The orifice of the urethra was in the very center of the mass. A careful vaginal examination was not made at the time, as the vaginal structures, present in their integrity, rendered such an exploration very painful.

The operation was done the next day, December 4th. The small blade of a Jones's speculum—an excellent self-retaining perineal retractor—was introduced. The patient being in the Simons' posture, the urethra was by this means exposed in its entire length. A longitudinal incision was made through the mucous membrane, along the dorsum of the urethra from a point where the presenting part of the mass was eroded to the base of the bladder. Another incision through the mucous membrane was made at right angles to the foregoing at a point far enough above the eroded mass to insure healthy tissue. The mucous membrane was then dissected back in two lateral flaps and the urethra was enucleated.

The urethra was found to be distinctly conical in shape, the base of the cone being at the meatus, the apex at the bladder. Care was taken to dissect out the canal to a point manifestly above the zone of malignant involvement. When this point was reached, but a slight distance from the bladder, the canal with its neoplastic walls was excised. The cut margin of the cystic segment of the canal was seized at various points in its circumference by Kocher's

forceps, brought down by gentle traction and fixed by interrupted sutures of silkworm gut to the vaginal mucous membrane. A self-retaining catheter was inserted and the patient was put to bed. The sutures were removed on the eighth day. The catheter was dispensed with on the twelfth day. The patient sat up on the fourteenth day, when she found that she could retain her urine and void it at will. She was dismissed December 21st entirely healed.

She remained in good health until the 1st of July following—seven months—when she again summoned Dr. Morris because of some stomach symptoms. He found her suffering from persistent vomiting and with a large mass in the epigastrium. This mass rapidly increased in size until it occupied all of the area between the navel and the breast bone, its nodular characteristics becoming more and more pronounced. She died of exhaustion July 14, 1896, having had no recurrence whatever of the urethral trouble. No autopsy was permitted.

The specimen removed was a dark mass, tri-lobar and conical in shape, being about 2 c.m. in diameter at its base and about 25 m.m. in diameter at its apex. Its longitudinal diameter was approximately 3.5 c.m. It had a distinct investment capsule of loose connective tissue, which was broken at the margin of the eroded base. The base of the tumor was pierced in its center by the meatus urethrae, was eroded, black and presented the appearance of a diffuse ecchymosis. This dark coloring was found on sections of the tumor, after hardening, to depend upon diffuse pigmentation, which, however, was more marked in one lobe than in the remaining two. The cells are of the small round variety, although in some parts they are of a larger size. The stroma is very slight, while in some parts it is practically absent. Some pigmented cells may be found interspersed throughout the growth, while in one lobe the nonpigment cells are gathered in clusters, each cluster being surrounded by heavy deposits of pigment, most of which is found in cell bodies, but much of it is apparently enmeshed in the slender fibrillæ of the stroma. A cross-section of both the urethra and of Skene's follicles reveals the epithelium of the mucous membrane of each practically undisturbed. The investment capsule can be distinctly traced and consists of connective tissue, the inner surface of which alone presents slight evidence of round-cell invasion.

ST. LEGER PLACE.

Clinical Report.

PREGNANCY FOLLOWING IMPERFECT COITUS; UNYIELDING HYMEN.

By G. A. HIMMELSBACH, M. D.,

Assistant attending physician Buffalo General Hospital.

MRS. ———; age, 34; married on Wednesday, November 25, 1895. On the Sunday preceding Wednesday she ceased menstruating (*i. e.*, three days before). Marital relations had not proceeded far before it was discovered that sexual intercourse was impossible on account of a tight (small) and unyielding condition of the hymen. The couple were now on their honeymoon, and naturally this condition of affairs proved a great disappointment to them both. They, however, decided not to consult a physician until their return home. During their absence, and in fact until near Christmas, *i. e.*, one month following their marriage, they did not cease their efforts at natural intercourse, but all was in vain. At last discouraged with their futile attempts, Mrs. ——— consulted an able physician here, who after his examination remarked "that he did not wonder at their repeated failure." He inquired of patient "whether she had ever menstruated," presumably considering the case one of imperforate hymen, and her reply was in the affirmative and regularly since puberty. This, I am told, was a surprise to him, because, as he remarked, "he did not see how the menstrual flow found its escape." At her request he made several incisions, increasing the lumen of the vaginal entrance: for a week or so subsequent to this, coitus was interdicted, and when it was permitted was extremely painful.

On the morning of June 24th, I was hastily summoned to the residence of the young woman, and on my arrival learned that thirty-six hours before, while walking leisurely on the street, she suddenly lost all control of her urine. She hastened home and found, much to her surprise, that instead of the flow of urine coming to a stop it continued to dribble. She soon was taken with cramp-like pains, but even this did not alarm her. She was satisfied that they could not be labor pains, for she did not expect her confinement till the latter part of August or September 1st, *i. e.*, in two months at the very earliest.

When I first saw her, examination showed the cervix to be entirely obliterated and the external os the size of a silver dollar, vertex presenting, and, much to her surprise, I informed her of the inevitable result, and at 10 A. M. I delivered her of a male child; first position, cord about the neck; the child soon cried and showed other evidences of life, and after a long wait the cord was tied and child wrapped in woollens and carried to the hearth. I did not permit him to be handled and

allowed him to remain unwashed for several hours, when I considered his condition warranted careful handling with safety.

The child's head was well covered with dark hair ; its finger and toe nails were fairly well grown, pulse 144, a well-formed head and body, but very small, weighing $3\frac{3}{4}$ pounds ; in all, appearing to me like a child of about seven months.

The last two hours of labor was exceedingly trying and painful, owing to the atresia of the vulval outlet. After complete cervical dilatation the head descended and remained on the perineum for two hours, giving time for the perineal fibers to arrange themselves ; but in spite of this delay a slight median laceration occurred and was immediately sutured.

I relate this history in detail because of its extreme interest and unusual occurrence. I desire principally to show that conception can take place without a natural coitus. It will be observed that from the day of marriage to the day of birth was exactly seven months lacking one day (November 25th to June 24th). It will be remembered also that she ceased menstruating three days before her marriage, so I assume that conception must have taken place the first few days of marital life, notwithstanding the fact that natural coition was not had until early in January, over a week after the operation.

137 W. TUPPER STREET.

Progress in Medical Science.

GENITO-URINARY AND SYPHILITIC DISEASES.

CONDUCTED BY BYRON H. DAGGETT, M. D., Buffalo, N. Y.

DIAGNOSIS OF CALCULUS BY THE NEW PHOTOGRAPHY.

CHOPPINS (*Medical Bulletin* for September, 1896,) shows that it will soon be possible to diagnose calculi with absolute exactness. While their pictures do not show the organ in which the calculus is located, they make it possible to distinguish the substance of which the calculus is composed, whether it is homogeneous or formed of different layers, whether it is large or small. The differences in the depth of the shadow in the photograph are so marked as to indicate the characteristics and kind of calculi. The tiny kernel of uric acid is distinctly visible, while the outer layers of the larger calculus show distinctly defined rings. One photograph showed a kernel of urate of soda in an outer layer of triple phosphate clearly defined.

Photograph showed : (1) The silhouette cast by a calculus of pure uric acid. (2) Calculus of the same size composed of phosphate of ammonia and magnesia. (3) A much larger calculus of several distinct layers of uric acid in the center, with an outer layer, entirely different in color, and composed with triple phosphate. Another photograph showed several uric acid calculi lodged in the parenchyma of the kidney. The rays passed through this thick, tough tissue, photographing only the calculi.

There is a method described in the *Semaine Medicale*, whereby, instead of taking photographs, we may look in and see the skeleton with our own eyes. Buka, Röntgen, Salvioli, Lewy, du Bois-Raymond and others have distinguished the skeleton and organs throughout the body and diagnosed, with great accuracy, several cases of arterio-sclerosis and the like by this method.

Becker, of Berlin, suggests that lime water be injected into the hollow organs of the body, or that air be introduced so that the organ may be seen or photographed. The lime makes fluorescence and the air permits the passage of the Röntgen rays. This new photography will enable us to diagnose and locate calculi and outline the viscus containing it.

FORMALIN IN DISEASES OF THE GENITO-URINARY TRACT.

LAMORQUE (*Ann. d. Mal. d. Org. Ur.*, 1895, p. 910,) states that he has tried formalin in acute and chronic gonorrhea and in cystitis in various forms.

He used it by irrigation, 1 part to 500 of water, and by instillation, 1-100, employing a 40 per cent. solution of the French drug in alcohol. The results were no better than those produced by other well-known drugs, except in tubercular cystitis it promises to be of real value. It was used in five cases of tubercular cystitis, in which bichloride and iodoform instillations had been used without much benefit.

It induced marked diminution of all the symptoms. It should be used at least every other day. Pain was obviated by a previous injection of a solution of antipyrine.

QUICK FILTRATION OF URINE.

A SMALL quantity of urine (*Boston Medical and Surgical Journal*) is placed in a test tube and the mouth is plugged with cotton. A second tube is placed over the first, mouth to mouth, and then the

double tube is reversed in position. The upper tube containing the urine is gently heated, so that the expansion of the air forces the urine through the cotton and the filtered urine collects in the lower tube.

SIMPLE TEST FOR ALBUMIN.

DR. A. C. EWING (*Medical Record*) says: Draw up into a small glass pipette or tube about an inch of the urine, let the finger remain tightly over the top and insert the pipette into nitric acid and draw up under the urine about the same quantity of acid, when, if even a trace of true albumin be present, there will appear a beautiful line of demarcation between the acid and urine. This test is as accurate as it is simple, and, besides, is decidedly economical and far less troublesome than any of the other tests.

RESULTS OF CASTRATION UPON PROSTATIC HYPERTROPHY, AS SHOWN IN SIX CASES.

DR. L. S. PILCHER (*Annals of Surgery*, XXIII., No. 6, p. 687,) reports four prostatectomies resulting in death of all of the subjects within ten days.

Dr. Pilcher also reports six orchidectomies for the relief of urinary disturbance and obstruction, caused by senile hypertrophy of the prostate. In all of these cases there was a permanent improvement in the urinary obstructive symptoms and in most of them marked improvement in the general health. In one case nocturnal delirium and impairment of the mental faculties developed three months after the operation.

CASTRATION FOR ENLARGED PROSTATE.

CABOT, of Boston, reviewing this subject, formulates the following conclusions: 1. Castration is quite as fatal a procedure as prostatectomy. 2. Prostatectomy has an advantage in that it opens a way to examine the bladder, and, perhaps, save a second operation. Calculi have been found in the bladder, following castration for the relief of prostatic hypertrophy. 3. Prostatectomy confines the patient a longer time and is liable to be followed by fistula. 4. It is too early to know whether permanent loss of vigor follows castration in old men. 5. The functional results and relapses are about equal in these procedures. 6. Castration diminishes conges-

tion, thus reducing the size of the prostate, followed by degeneration, absorption and atrophy of the glandular elements. 7. Castration is especially indicated in cases of large prostates, when urinary obstruction is due to pressure of the lateral lobes. 8. Castration is of little use in myomatous and fibrous prostates. 9. Prostatectomy is indicated for the relief of valvular obstructions. A skilful operator will correct any form of prostatic obstruction by prostatectomy. 10. Prostatectomy is applicable to more cases than castration. It permits diagnosis, operation and drainage.

ARGONIN FOR GONORRHEA.

SWINBURNE, New York, (*Jour. Cutaneous and Genito-urinary Diseases*, August, 1896,) relates his experience with argonin in the treatment of acute gonorrhea. This drug is a compound of silver and casein, forming a grey-white powder, 15 to 1 of silver. It is stated that chlorate of sodium does not precipitate the silver, and albuminous substances do not decompose the compound.

Jodasson alleges that it possesses powerful germicidal properties, that it is not irritating even in concentrated solutions, and that it possesses no astringent properties. It does not stain or discolor clothing or skin. Heated over a water-bath in water it forms an opalescent, viscid, albuminous fluid, neutral in reaction. The maximum strength is 10 per cent.

Dr. Swinburne states that a 10 per cent. solution of argonin, by injection, caused a rapid diminution of the discharge and of the number of gonococci. In some cases the germs were rather persistent and sometimes increased in numbers. In several instances they reappeared after omission of the treatment, but were quickly eliminated by its renewal. This treatment caused no inflammatory reaction; on the contrary, it diminished the inflammatory action caused by the disease. In the earliest stages of the disease the ardor urinæ is markedly diminished or completely relieved by this treatment.

When posterior urethritis was present, the doctor injected two drachms of a 10 per cent. solution through a soft catheter passed through the constrictor muscle into this region. In all cases he first irrigated with a solution of permanganate of potash. Injections of argonin (10 per cent.) caused no pain, only "a little burning for a while."

The reviewer insufflates the posterior urethra by means of a Codman & Shurtliff powder blower and a urethral tube, fenestration

trated at its distal end, applying in this way full strength argonin powder to the dilated posterior urethra. Results have been very satisfactory. This powder is not to be repeated too often or continued too long.

Dr. Swinburne further says that he has used argonin in about a dozen cases of chronic urethritis, which were rebellious to other modes of treatment, and has been impressed with the results. So say we, also.

Jodasson says that the addition of 0.3 per cent. of liquor ammoniæ caustici increases the penetrating power of the solution.

Dr. A. Lewin, in the *Berliner Klinische Wochenschrift* (*Medical Bulletin*), says that he has employed argonin in solution, three parts to 200, and injected ten centimeters five times daily, which were held in the urethra five minutes.

Of the twelve cases reported, in nine the gonococci disappeared in from two to six days; one case, after four weeks' treatment with injectio composito, still showed abundant gonococci; was freed from these germs by two days' treatment with argonin. In another case, gonococci were found after ten days' treatment with argonin; in still another, gonococci reappeared as soon as the argonin treatment was interrupted. Lewin says there was not a single complaint of irritation. He could increase this dose largely and not have complaints.

If the secretion persisted after discontinuing the argonin, Dr. Lewin says that the use of sulpho-carbolate of zinc will quickly check it. Dr. Lewin agrees with Jodasson that argonin possesses preëminent gonococci-destroying qualities, and does not cause irritation.

OBSTETRICS, GYNECOLOGY AND PELVIC SURGERY.

CONDUCTED BY WILLIAM WARREN POTTER, M. D., Buffalo, N. Y.
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PUERPERAL INSANITY.

FROM an analysis of eighty-eight cases (*Am. Jour. Insanity*, July, 1896,) and a general discussion of the subject, Pianetta, *Annali di Neurologia*, XIII., Fasc. III., vi., concludes as follows:

1. That the so-called puerperal insanity, and especially that type developed during pregnancy, is rare.
2. That its occurrence cannot be etiologically attributed to any specific influence of the puerperal conditions, either pregnancy, the

puerperal state properly speaking, or lactation, but that these are rather to be considered as occasional causes of the disorder.

3. That the mental disorder developing during the puerperal state has not special characters sufficient to separate it from other forms of insanity independent of the puerperium, either in its clinical manifestations or its course and termination, and it frequently appears under the forms of maniacal and stuporous confusional insanity.

4. That its prognosis is generally favorable and its treatment should be that of mental diseases in general, and especially be based on the etiological data and the special form in which the disorder appears in each case.

TREATMENT OF PUERPERAL ECLAMPSIA.

THEOPHILUS PARVIN, of Philadelphia, (*Medical Record*), said that puerperal eclampsia is in almost all cases caused by toxemia. Those cases in which the disease is apparently reflex in origin may be explained as resulting from an increased nervous excitability, consequent upon blood changes, and without such changes irritations would not cause convulsions. The bladder filled with urine, the loaded bowel, pain are not the essential causes; they are only exciting causes. The spark does not cause an explosion if there be no gunpowder.

He regarded that treatment as best which acts upon the essential cause and at the same time meets symptomatic indications.

He believed that veratrum viride is better than any other drug yet employed, and that it does affect the essential cause, as well as to a great degree the symptomatic conditions, for it notably reduces the frequency of the pulse, and convulsions occur only in very exceptional cases, if the pulse be kept at sixty or less; it increases the activity of the skin; it reduces the temperature; and it causes increased secretion of urine. Finally, the recovery of so large a number of mothers, about 92 per cent., when veratrum viride is employed, proves the value of the remedy.

ALBUMINURIA IN PREGNANT AND PUERPERAL WOMEN.

EKLUND (*Am. Jour. Obstet*, October, 1896,) writes on this subject, terminating his article with the following conclusions:

1. In handbooks for midwives, attention should be called to the necessity of examining the urine of every pregnant woman.

In case the urine is found to contain albumin, the midwife should be competent to order hot tub baths, flannel underwear, rest in the recumbent posture, mild diuretics and laxatives, beef tea with parsley, selsler water with boiling milk, milk food, boiled fruit weak coffee, tea and chocolate, compound licorice powder, etc. If this hygienic treatment does not within a certain time, say a month, cause the disappearance of the albumin, a physician should be called.

2. A matter of great importance is that the pregnant woman should learn to procure for herself daily evacuation of the bowels, especially toward the end of pregnancy and in beginning labor. For this purpose dietetic means should be employed chiefly, but in case of failure mild aperients should be used, such as cascara, senna, frangula, compound licorice powder, and enemata of water and salt.

3. Of the very highest importance during pregnancy, and especially during the puerperal state, is the care of the kidneys, the avoidance of all that would tend to increase the functional activity of these organs, the maintenance of equilibrium and the proper division of labor between the skin, the digestive apparatus and kidneys. If any organ can bear a greater exercise of function, it is the skin, and next in order of intolerance the intestinal tract; the lungs are far more sensitive, but the kidneys most of all.

4. No puerperal woman should be permitted to leave her bed until the urine is free from albumin, if possible.

CANCER OF PREGNANT UTERUS.

CORDIER, at the recent meeting of the Western Surgical and Gynecological Society, (*Am. Jour. Surg. and Gynec.*) made an earnest plea for the removal of cancer of the pregnant uterus, and the sooner the better. Statistics show, he claims, that 80 per cent. of the children die in these cases, and 60 per cent. of the mothers, either before the end of gestation, or before getting up from the bed, so that the mortality is exceedingly high for both. These malignant troubles spread very rapidly, and if they are not operated on before confinement, they will have gone beyond operative procedure; hence he urges early removal. The doctor reported a case in which he removed the pregnant uterus at third month for cancer of cervix. Patient made a rapid recovery, and is probably cured. He believes that neither mother nor child would have been alive at the end of

the period of gestation—so one life has been saved instead of two lost, a great argument in favor of radical rather than do-nothing plan of treatment.

RUPTURED TUBAL PREGNANCY.

A. H. CORDIER, Professor of Abdominal Surgery in the Kansas City Medical College, speaking of the necessity for operation in ruptured tubal pregnancy, (*Am. Jour. Surg. and Gynec.*), says the abdomen should be opened in every case just as soon as the diagnosis is certain or even probable—there should be no exception to the rule. He favors flushing the belly to clean out the clots, for if done properly it does not take long, and the hot salt solution restores the lost blood serum to a considerable degree, and the heat combats shock. In 126 cases in the practice of one operator all were irrigated, and only five died. The dangers to be feared from leaving the case unoperated are: (1) Secondary hemorrhage. (2) Survival of the fetus. (3) Abscess formation. (4) Sepsis. The surgeon should not refuse to operate, even if there has been terrible loss of blood. If the pulse can still be felt at the carotids, the abdomen should be opened and bleeding checked regardless of the amount of shock present.

DIFFUSE PELVIC INFLAMMATION.

DUNNING, Professor of Diseases of Women in the Medical College of Indiana, (*Indiana Medical Journal*), concludes an article on this subject as follows:

What shall we do for patients in whom the inflammation has spent its force, yet has left them with displaced and adherent uteri and appendages? They suffer more or less pain, are sterile, cannot endure wifely relations, and all are invalids in a lower or higher degree. Four plans of treatment are in vogue, and should, I think, be employed in the order mentioned: (1) The attempt to gradually loosen and replace the organs by gentle yet firm manipulation and tamponading. (2) Massage by the Brandt method. (3) Under anesthesia, the employment of Shultz's method of overcoming adhesions and restoration of the organs to the normal position. (4) And lastly, in case of failure of preceding methods, the employment of abdominal section, breaking up of adhesions, removal of the appendages, if markedly diseased, and ventrofixation or shortening of the round or broad ligaments, if retroversion exists. In all cases where it exists endometritis should be cured, and in mild cases, attended by marked pain without suppuration, galvanism will be found of value,

PERINEAL LACERATION.

ACCORDING to the Philadelphia Polyclinic, (*Med. Standard*,) in quite a number of cases laceration of the vagina and perineum may be avoided by a little patience on the part of the obstetrician, and judicious use of chloroform. This is particularly the case in primiparæ. The fetal head covered, and generally preceded by the bag of waters, makes an extremely good dilator, and ample time should be allowed for its passage through the soft parts. The patient can be easily controlled by having her lie on her side with her back toward the physician, while he makes gentle manipulation of the perineum in order to increase its distensibility. So long as the patient is making ordinary bearing-down efforts and the head is felt to advance slowly with each pain and recede slightly or remain quiescent in the intermission, no anesthetic is required; but if the head continues steadily to advance without rest, or if, after a short quick advance, the patient makes a great outcry of pain, chloroform or ether should be given. The anesthetic has a double effect—of stopping the advancing presenting part and giving the soft parts time to dilate. Chloroform has a more relaxing effect than ether on the tissues of the vagina and perineum and is less of a uterine stimulant. It is also more easily controlled and by it the pain-sense is diminished to a greater degree without the production of unconsciousness.

GONORRHEA IN WOMEN.

MARCUS ROSENWASSER states (*Cleveland Med. Jour.*, also reported in *Med. Standard*,) that while the gonococcus vegetates best within epithelial tissues, provided they are delicate, soft and moist, it also proliferates within and on the peritoneum and induces inflammation in connective tissue. Dry, horny layers of epithelium form an impenetrable barrier. It, therefore, flourishes in the vagina of young children and aged and pregnant women, but is rare in the same tissue of healthy adults. It thrives in the conjunctiva and mouth of the new-born and in the rectum of both sexes. Its presence in the urethra, the ducts of the gland of Bartholin, the vagina, the cervical canal, the uterine cavity, the tubes and on the surface of the ovaries causes inflammation in these organs. Its penetration into the lymph spaces produces broad-ligament infiltration, often leading to abscess. It can by the same route reach the hilum of the ovary and cause ovarian abscess without having passed

through the tube. It can enter the circulation direct and reach remote organs, thus causing gonorrheal metastasia. The locations of choice are the urethra and the vaginal portion of the cervix. A person may in time become accustomed to his own brood of germs so that they may cease giving trouble. Let them be transplanted to new soil, they at once affect the recipient with pristine vigor. Now, if these regenerated germs be returned to their original owner, they will initiate as vicious a recurrence as though they had never been there before. This is an explanation of "latent" and recurrent gonorrhea. Thus, too, a man and his wife may finally become indifferent to their own germs, but a third party may be infected by either. This third party may in turn reinfect husband or wife, and these again one another. Chronic gonorrhea, therefore, affords no immunity against an acute attack. Infection may be propagated by other means than sexual congress in its natural or perverted forms. Towels, sheets, sponges, baths taken in common, infected instruments, contact with secretion at birth, all are known to have been carriers of infection. In connection with infection at birth, by passage through a gonorrheic vagina, it should be remembered that Marx has often observed (*Brit. Med. Jour.*) symptoms precisely resembling those indicating acute inflammation of the appendages in the adult. A child subject to vulvitis, yet otherwise in good health, is suddenly seized with fever and nausea; pain is felt in the hypogastrium radiating along one or both thighs. Frequent desire to micturate and pricking feelings when urine is passing are often felt. Rectal exploration with the little finger shows characteristic deposits on each side of the uterus. Marx finds this physical symptom common and believes that the tubes are generally involved in chronic vulvitis. In such a case the pain at puberty is very violent, and masturbation may light up old-standing inflammatory troubles. Old lesions of this kind are certainly liable to become acute in young recently-married women through excessive coitus. It is quite a mistake to accuse the husband or to suspect that the wife has recently suffered from specific discharge in many such cases. The focus of disease has often dated from early childhood. It should be remembered that, as Dr. J. V. Shoemaker remarks (*Med. Bull.*):

Gonorrhea in the female occupies a different anatomical site than in the male, being, in a large majority of cases, a vaginitis. The infecting fluid is usually deposited in the upper part of this canal, and excites inflammation of the mucous membrane in that situation. The

disease generally originates from subacute, and particularly chronic, cases in the male partners, as in the acute state erections are painful and men are not in a state of mind or body which disposes them to seek the society of women. Urethritis in women is more commonly associated with gonorrheal inflammation of the vulvar or lower portions of the vagina. The diagnosis of gonorrhea is seldom difficult. The discharge is much more abundant in vaginitis than in leucorrhea. An unusually copious leucorrheal flow might stimulate the declining stage of a gonorrhea, but the use of the speculum will enable us to distinguish between the two affections.

OPHTHALMOLOGY.

CONDUCTED BY ALVIN A. HUBBELL, M. D.,

Professor of ophthalmology at Niagara University Medical College.

THE FORMATION OF ARTIFICIAL PUPIL BY EXTRAOCULAR IRIDOTOMY.

AT A MEETING of the British Medical Association recently, (*British Medical Journal*, September 26, 1896,) an address by J. B. Lawford, F. R. C. S., of St. Thomas's Hospital, London, was given on The formation of artificial pupil by extraocular iridotomy, in which he states :

That the operative procedure, variously described as extraocular iridotomy or precorneal iridotomy, was introduced by Professor Schoeler, of Berlin, and described by him in 1886.

Mr. Lawford has performed the operation on a limited number of patients since 1891, and has, so far, found it a satisfactory method of dealing with cases in which, for various reasons, it is desirable to make a small coloboma in the iris, for visual purposes.

The cases for which it seems most suitable are corneal opacity, involving the central area, and leaving the periphery, in whole or in part, transparent ; stationary nuclear opacity of the lens, and obstruction of the pupil by deposit on the anterior lens capsule, as a result of disease or as a congenital defect.

It is, he thinks, preferable to intraocular iridotomy (except in aphakic eyes), because safer, and superior to iridectomy in its optical results.

The position in which the gap in the iris should be made will necessarily vary. Generally, the inferior nasal quadrant has been selected ; want of transparency of the cornea in this position may, however, interfere, and the coloboma should then be made in the lower or lower and outer part. The technique of the operation,

in his hands, is as follows : A small corneal incision is made with a triangular keratome, close to, but not quite at, the limbus cornea ; the knife is carefully withdrawn to avoid a following prolapse of iris. A pair of fine, curved iris forceps, without teeth, is then introduced, and the iris gently grasped close to its pupillary border and withdrawn. It is divided at right angles to the pupillary edge and through about half its width with a pair of iris scissors, and afterwards carefully and gently returned to the anterior chamber.

After tucking back the iris, eserine drops may be applied. The eye is then tied up with a pad and bandage, and the patient kept perfectly quiet for twenty-four hours.

The whole proceeding should be carried out with the strictest precautions against sepsis. As a rule, no reaction follows and the corneal wound heals rapidly. He has had no serious iritis in any case. In adults, generally, cocaine produces sufficient anesthesia ; in children a general anesthesia is necessary.

LOCATION OF FOREIGN BODIES IN THE EYE WITH RÖNTGEN RAYS.

DR. CLARK, of Columbus, O., at the thirty-second annual meeting of the American Ophthalmological Society, held at New London, Conn., July, 1896, reported a case in which the presence of a small fragment of metal in the extreme angle of the anterior chamber and the iris, where it could not be seen, had been determined by skiagraphy. The sensitive plate had been introduced into the adjoining nostril, the patient being put under ether, and the rays directed upon it through the eye from the temporal side. He suggested that the plate could also be placed in the cocainised conjunctival sac, or an opening could be made in the conjunctiva and the small plate slipped behind it. He believed that this method of locating a foreign body in the eye-ball was perfectly practicable, especially if the particle were lodged anteriorly, as in the ciliary region, where it could not be seen with the ophthalmoscope.

Dr. C. H. WILLIAMS, Boston, Mass., reported a case in which a fragment of the copper case of a cartridge had passed through the cornea and lens. Nothing could be seen of it and it was not certain that it was in the eye. The use of the X-rays showed the presence of the fragment and it was removed. The skiagraph was obtained with ten minutes' exposure by laying the patient's head

with the side of the injured eye upon the plate, and placing the Crookes' tube above and rather in front of the patient's head.

CATARACT EXTRACTION.

G. A. BERRY, (*British Medical Journal*, Sept. 26, 1896,) in discussing the subject of cataract extraction at a recent meeting of the British Medical Association, said :

I used to think the only advantage of simple overcombined extraction was the round pupil, a cosmetic advantage to which, on account of the age of the cataract patients as a rule, and of the fact that the cornea is usually to some extent covered by the lid, I was not prepared to ascribe much importance, especially if a small coloboma be made when the combined operation is done. I now consider—and, indeed, I am inclined to go further and say I know—that there are other and more important advantages in a simple extraction if the operation be performed by the method to which I shall presently refer.

On the other hand, there are unquestionably greater difficulties in the simple operation itself, and certain cases in which it is more or less unsuitable. A proper course, therefore, that is, one calculated to give the best results in a large number of cases, necessitates making a selection. If it were necessary to choose between the two operations, one which should be put in practice in every case, I should unhesitatingly choose the operation with iridectomy. That operation, too, I should recommend to all whose experience of extracting for cataract is limited. Hence, in talking of making a selection, I mean selecting the cases in which one may attempt to get the greater advantages of the simple operation with the best chances of success.

The method of performing simple extraction which has led me to alter my views as to its value is one which, so far as I know, is due to Prof. Snellen. At all events, I have only seen it put in practice by him. The incision is large, occupying half the circumference of the cornea. It lies in the apparent corneo-scleral margin, and is made with a large and broad conjunctival flap, the knife being carried for fully a quarter of an inch below the conjunctiva before cutting out after the section at the corneo-scleral margin is completed. The cystotome is introduced from the side, that is, at the one end of the incision. The cornea is then pressed upon below the center, so as to cause the large wound to gape considerably and

make the edge of the lens escape in front of the iris. A strong solution of pilocarpine is used immediately before operating. Needling is done a fortnight later.

Snellen operates without a speculum, the lids being held apart by a good assistant. He also fixes the conjunctiva at a point opposite the point of puncture. The site of the incision at the corneo-scleral margin secures good opposition, and the large conjunctival flap provides well for the vitality of the cornea and for rapidity of healing. The incision, though large, has not, therefore, any of the objections which led to the abandonment of the corneal flap of the earlier simple extractions. To come now to the question of iris prolapse, the bugbear, if one may judge from many different reports of those who make it a rule to practise simple extraction by other methods. I have no hesitation in saying that prolapses are so rare when the operation is done in the manner I am now discussing that they need not practically be considered to occur at all. This would seem to some a pretty bold assertion, and, indeed, it does require to be qualified in one important way. Prolapses do occur, but they occur only during, and sometimes within an hour or two after operation, but not later. Since discovering this, I have made it a rule to perform iridectomy whenever the iris does not at once go back of itself or by rubbing on the cornea, or after running the shell repositior along the wound, and go back so completely as to leave a perfect round and contracted pupil.

No doubt iridectomy at this stage will be necessary more often at the hands of one operator than of another. At present I have to resort to it in about one case out of ten, and I believe it is more prudent to overdo this precaution than otherwise. It is well, too, to see the eye in other cases a short time after operation, especially where the patient has been allowed to walk from the operation table to bed. It is comparatively rare to find a prolapse then, if the strong solution of pilocarpine has been used, but if found it should be removed and not replaced.

With these exceptions, then, I say prolapse does not occur. Even the risk of a slight blow to the eye, which is not so uncommon an occurrence and which often leads to the bursting of the wound and obliteration of the chamber in the ordinary operation with iridectomy, need not be feared. The wound, owing to rapidity of healing of the conjunctival flap, is so much stronger that should it give way at all it does so over a comparatively small extent.

THE THERAPEUTIC VALUE OF HYDROBROMATE OF SCOPOLAMINE IN PLASTIC IRITIS.

C. A. OLIVER (*American Journal of Medical Sciences*, November, 1896,) sums up his experience with hydrobromate of scopolamine as follows :

1. Hydrobromate of scopolamine is of the greatest value in the local treatment of the various forms of plastic iritis.

2. The primary reparative action and quieting power of hydrobromate of scopolamine, as compared with those of similar doses of sulphate of atropine in the treatment of plastic iritis, are much more promptly obtained with the former than with the latter drug, this being true in the majority of cases even when the latter drug is used in dosages that are equal to quadruple or quintuple the strengths that are employed of the former drug.

3. The duration of the healing and soothing powers of hydrobromate of scopolamine, as compared with those of equal doses of sulphate of atropine in cases of plastic iritis, does not seem to be so lasting with the former as with the latter drug, this being true in the majority of cases even when the latter drug is used in four or five times the strength doses as the former.

4. For quick and active measures, which are so eminently necessary in incipient cases of plastic iritis and during the early stages of inflammatory reaction, hydrobromate of scopolamine is to be preferred to sulphate of atropine.

5. Where prolonged use of such drugs is necessary, as in many cases of the chronic form of the disease with subacute exacerbations, the alternate employment of hydrobromate of scopolamine and sulphate of atropine seems empirically to be the best method of local administration that has been devised.

6. As critically employed, the best salt of the alkaloid seems to be the hydrobromate ; the best method of instillation appears to be that which is accomplished by dropping the solution upon the corneal limbus whilst the lower punctum is everted and the corresponding canaliculus is pressed upon, and the most efficient amount to be used at one sitting is two drops of a one-tenth of 1 per cent. strength (1 to 500), repeated, if necessary, as often as three times during the course of an hour, and preceded, when desired, as in some instances where there are much irritation and pain, by two drops of a 2 per cent. solution of hydrobromate of cocaine a few minutes before each instillation of the scopolamine.

UPON THE VALUE OF EUCAINE IN OPHTHALMIC PRACTICE.

RICHARD VOLLERT (*Annals of Ophthalmology and Otology*, July, 1896,) has used eucaine, a drug which has been recently brought forward by the chemical factory of Actien (formerly Schering) as a new local anesthetic. Eucaine has, like cocaine, a very long chemical name and formula (Amethyl-benzoyl-tetramethyl-gamma-oxypiperidine-carbonic acid methylester) $C_{19}H_{27}NO_4$ $CHL H_2O$. The muriate is in shining plates and also crystallises in shining prisms from mythalic alcohol. Both are soluble to 6 per cent. in water at ordinary temperature. The base is with difficulty soluble in water, but with HCL makes a very soluble salt which remains anesthetic when heated, and is also soluble in 1-5 per cent. sublimate solution. When dropped in the eye in a 5 per cent. solution it produces painful irritation, lasting for one or two minutes (longer than cocain and more irritating). Considerable injection of the conjunctival and ciliary vessels, with first lessened and later heightened tension, follows. Anesthesia of the cornea and conjunctiva is secured in two to three minutes, lasting for eight to twelve minutes, and disappears entirely in fifteen minutes, causing little or no action upon the pupil or accommodation. Eucaine, like cocaine, impairs the corneal epithelium, perhaps more than the latter. On account of its feeble action in producing mydriasis and paresis of the accommodation, it may be useful as an anesthetic in selected cases. Vollert, however, does not think that our old friend, cocaine, will be superseded by this new drug, principally on account of the irritative effect of the latter.

Vinci, also, has experimented with this new compound from the laboratory of Prof. Liebreich. He finds that instilled into the eye of an animal in 2 to 5 per cent. solution causes complete local anesthesia in from one to three minutes, beginning with the cornea, spreading to the conjunctiva, and lasting on an average from ten to twenty minutes; pupil does not dilate. Injected under the skin or painted on the mucosa, complete anesthesia follows. General action as a poison shows excitation on the central nervous system, followed by paralysis, going on to death.

Eucaine is, he says, physiologically similar to cocaine, but is less poisonous. It causes no ischemia; on the contrary, vascular dilation occurs, and in ophthalmic practice it may be employed where the former is not desired. In the eye the pupils are not affected; mydriasis does not occur and reaction to light remains normal. The drug was tried in Prof. Schweigger's ophthalmological depart-

ment at the University clinic, in Berlin, with the same result. Patients complain of transitory burning, but only when the methyl-alcohol preparation was used ; therefore the watery solution is to be preferred for practical use. Cocaine and eucaine diminish the intraocular pressure, but equally. Eucaine solutions are permanent and do not, like those of cocaine, decompose when kept or when boiled.

PHOTOGRAPHY OF THE RETINA.

TH. GUILLOZ (*Medical Week*, June 5, 1896,) says that he first successfully employed photography of the retina for clinical purposes in the year 1893. His procedure is based on the following principle: When the pupil is dilated, the fundus of the eye may be illuminated, so as to permit of examination of the retina with a lens, without the necessity of any ophthalmoscopic mirror. The observation is thus made on the reversed image, and it is this image which is fixed by means of a photographic objective. Moreover, as the time of exposure, however short, is an inconvenience, he has constructed a special apparatus for instantaneous photography of the retina.

The photographs obtained in this manner show the ophthalmological image reversed, as it appears on examination, with the reflection from the optic disc and cornea ; but since then the author, by a new method of illumination, has succeeded in getting rid of this reflection.

A NEW METHOD OF TREATING PTERYGIUM.

ANTON COE, of Washington, D. C., (*Annals of Ophthalmology and Otology*, April, 1896,) says he is satisfied that in the treatment of pterygium, the whole trouble lies alone in the apex, and that the vascular supply is not a part of the disease, but only an effect, as it but answers the call of the apex for blood, and, thus reasoned, that if the apex could be destroyed the vascular supply would cease from disuse.

The eye being placed under the influence of a 2 per cent. solution of cocaine, applied to the apex only, he heats to redness a platinum probe and applies it to the lower half of the apex, leaving the upper and deeper portions for the third and fifth days. In

one case reported the patient was seen again on the third day, when it was found that the vessels feeding the lower portion first cauterised were disappearing, and they so progressed until six days after, when there was scarcely a trace of the former trouble.

PROGNOSTIC VALUE OF ALBUMINURIC RETINITIS.

POSSANER, (*Beitr. z. Augenheilk.*, Heft XV., 1895; *Annals of Ophthalmology and Otology*, April, 1896,) after studying the records of 67,000 patients seen in Haab's clinic in Zurich, finds that albuminuric retinitis was observed in only 131 cases (1.9 per cent.). Authors vary greatly as regards frequency of retinitis in kidney disease: 6.7 per cent. (Schweigger) to 33 per cent. (Galezowski). Most writers agree that, as a rule, death occurs within two years at least after appearance of the retinitis. Possaner has seen seventy-two cases, thirty-nine in private and thirty-three in hospital practice. Of the latter there were fourteen men, all of whom died within two years; of the nineteen women, thirteen died within two years, two after a longer time, and four were still alive. The longest period of life observed was six years. Of the thirty-nine private patients (twenty-six men and thirteen women), sixteen men and seven women died within two years. In those still living the retinitis is dated from a minimum of two and a quarter to a maximum of eleven years. The better surroundings of private patients give them advantages, but even here the mortality is 53 per cent. in the first two years.

ON THE PHYSIOLOGICAL ACTION OF ARECOLIN, A NEW MYOTIC ALKALOID.

LAVAGNA, (*Annals of Ophthalmology and Otology*, January, 1896,) while investigating the physiological effects of the salts of arecolin, found them to possess very energetic, though temporary, myotic qualities. One drop of a 1 per cent. solution produced, in five minutes a well-marked contraction of the pupil, which lasted seventy minutes. This was accompanied by a spasm of the ciliary muscle, similar to that set up by eserine. It also lowered the tension of glaucomatous eyes treated by it. Lavagna recommends its employment in all cases where a thorough, but temporary, myosis is desired.

DISCUSSION ON VIVISECTION VS. ANTI-VIVISECTION.¹

By PROF. V. A. MOORE, Ithaca, N. Y.,

Formerly bacteriologist to Department of Animal Industries, Washington, D. C.

I INTENDED to prepare a paper for this meeting on the importance of animal experimentation, but on account of stress of work was unable to do so. It seems necessary to bring a few facts before the society, coming as I have from the hot-bed of this contest. It is difficult to tell just who started this bill originally, but it was presented by Senator Maemillan, of Michigan. It was brought by certain people belonging to the anti-vivisectionist society. They planned a bill entitled, A bill for the further prevention of cruelty to animals in the District of Columbia. It is not necessary to read this, as it is quite an extensive document. While they had not claimed that they wished to prevent animal experiments, the bill if passed will prevent further investigation of the government in this line.

In the first bill presented to this committee, the law required that licenses should be issued by the district commissioners to all people engaged in vivisection, and the district commissioners should exercise judgment as to who were fitted to perform these experiments, putting into the hands of the district commissioners the power to grant these licenses, which must be obtained for every experiment. These permits must be obtained five days before the performance of the experiments. You who are familiar with animal experimentation know that a delay of five days is sufficient to spoil all good that may possibly come from such work. You see it practically stops all work. In addition to that, these commissioners were to appoint a committee of three from the Humane Society, so-called, who were to inspect laboratory work at any time they choose. You must open the doors and explain the investigation or experiment and stop all work and make an elaborate report to the district commissioners whenever requested to do so. This bill came up before the district commissioners and was opposed with as much argument as possible, but to no avail. The anti-vivisectionists procured a very oratorical lawyer and statements of experiments made in France thirty or forty years ago, and were successful. They did modify it somewhat, so that the committee should be appointed by the president and not by the district commissioners. While it seemed unreasonable to think this bill could

1. Before the nineteenth annual meeting of the American Microscopical Society, Pittsburg, Pa., August 19, 1896.

be reported, it was, and I have here the report on the same. It shows that the senators were fair in incorporating a good portion of the argument in opposition to it. It is on the calendar of the United States Senate and may pass that body immediately after convening of Congress in December. The people anxious for this bill have circulated petitions and have secured signatures of a great many men of prominence, bishops, clergymen and physicians. One of these has written Bishop Hurst a letter, saying that it was presented to him to prevent vivisection in schools, and the like, in the District of Columbia, and we have found from consulting other people that they considered this bill of that character and not of the sweeping nature it really is. It is one of the most outlandish, unreasonable combinations of proposed legislation that I have ever read, and its influence can be seen from the fact that these men and women who in the State of Massachusetts tried to get similar legislation through, and then admitted that, if they can get this bill through Congress, they can use it in getting state legislation, so that really the time is coming when this country will be in the same deplorable condition that England has been for so many years. It is our opinion that vivisection in public schools should not exist. Laws in many states prohibit that. There is a law covering that in the District of Columbia. We have letters and a report from the commissioner there that vivisection is not practised in the schools and it is not practised in the district schools anywhere, so far as I can learn. We do not want it, do not believe it humane and do not wish to use the life of an animal unless it is for a definite purpose. These remarks seem necessary to show just the condition and the only way in which this bill can be stopped. I think from reports that a large number of senators and representatives who have committed themselves to it, show that the average man is interested in this great question. The admission of such laws has cost England millions of dollars. For example, two diseases have cost England in money \$400,000,000. The experiments necessary to find out the causes of these diseases and to find out how these diseases could be prevented would cost comparatively little. Think of the number of animals that have died from these diseases, to the amount in value of \$400,000,000, and in this country we had about the same thing going on until this method was devised. All the diseases which have caused innumerable millions of lives are now rare occurrences, such as small-pox, cholera, and like diseases. It seems to me the number of animals that have been sacrificed is very few. On

the other hand, I believe the animals used in these experiments suffer inconsiderably. It is only a question of premature death; but the question, it seems to me, does not rest on that. We have vivisection or animal experimentation for three legitimate purposes. The first is the demonstration of facts already known.

I believe it is necessary to experiment in medical schools. I believe it is necessary, and think every physician in this audience will agree with me, that every medical student should perform experiments on animals. Nobody, in my opinion, has a right to perform surgical operations on the human body until he is familiar with these experiments on the animal, which is always done with anesthetics.

Then there is the necessity for experimentation for the determination of facts, in which the knowledge to be gained has not any immediate utilitarian value, but may be of untold benefit ultimately. Some people think it is wrong to sacrifice life for this purpose.

Experiments made years ago determined facts that were looked upon as ultra-scientific and that are now indispensable to our knowledge. We are in possession of them because those men experimented for fact's sake and nothing else. We make these experiments for the ultimate purpose of determining facts which will save life and alleviate suffering.

There has been circulated recently, emanating from Philadelphia, a paper having a great deal of influence, saying that there is not any such thing as rabies, and that as a specific disease it does not exist. I do not know how many are familiar with the Pasteur method, but I venture to give a brief explanation of this. It was found by Pasteur and many others that if rabbits or other animals are inoculated with rabies they will die with certain paralytic symptoms. Then, if we inoculate rabbits with healthy brains they remain well. Before this discovery by Pasteur, of people bitten by mad dogs, about 48 per cent. died. This has been reduced by Pasteur's treatment to less than 1 per cent. This disease exists in this country to an enormous extent. We have had in the city of Washington fifteen cases of rabid dogs during the last ten months. One lady who was bitten by her dog died of rabies. The period of inoculation in a rabbit is less than in a human being. This lady was bitten in the face very badly, on the arm, shoulder and neck, by a dog, and the dog was brought to us and I inoculated two rabbits, and on the fifteenth day the physician who had charge came to me saying, "she is showing signs of rabies." We

examined the rabbits and they appeared perfectly well. She died that night and the rabbits two days later. Again, a lady brought a dog for examination, wrapped up in a blanket on her arm, saying it had indigestion. I inoculated rabbits and they developed rabies and died on the twelfth day.

I wish to make a motion that the president appoint a committee from this society to draw up resolutions protesting against this or any other bill prohibiting animal experimentation.

The following resolutions were reported to the society on Thursday, August 20, 1896, and unanimously adopted by a rising vote :

WHEREAS, The American Microscopical Society, assembled in Pittsburg, Pa., August 18, 1896, for its nineteenth annual meeting, recognises the fact that the development of biological and medical sciences has resulted largely from experiments upon living animals ; and

WHEREAS, Those engaged in experimenting upon living animals in scientific laboratories do so for the purpose of gaining the knowledge which may result in alleviating human suffering and improving the condition and value of domesticated animals ; and

WHEREAS, No evidence has been presented by those who advocate restrictive legislation showing that abuses, such as cruel and unnecessary experiments, are practised in the District of Columbia ; and

WHEREAS, Results of great scientific and practical importance have been obtained by experiments on the lower animals made in Government laboratories in the District of Columbia ; therefore be it

Resolved, That the American Microscopical Society earnestly protests against the passage of Senate Bill No. 1552, entitled, A Bill for the Further Prevention of Cruelty to Animals in the District of Columbia, or any modification of this bill, or of any other bill restricting animal experimentation for scientific purposes.

Resolved, That copies of these resolutions, attested by the signatures of the officers of this society, and of its committee appointed to draft these resolutions, be sent to the chairman of the committee on the District of Columbia in the United States Senate and House of Representatives.

(Signed)

A. CLIFFORD MERCER, *President*.

WM. C. KRAUSS, *Secretary*.

MAGNUS PFLAUM, *Treasurer*.

V. A. MOORE, Ithaca, N. Y., *Chairman*.

D. S. KELLCOTT, Columbus, O.

SUSANNA PHELPS GAGE, Ithaca, N. Y.

EDITH J. CLAYPOLE, Wellesley, Mass.

HERMAN von SCHRENK, St. Louis, Mo.

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PREVENTION OF DISEASE BY MUNICIPAL EMPLOYMENT.

WITH the approach of winter certain problems are always presented in a great city that are intimately related to the prevention of disease through the proper exercise of public and private charity and the employment of idle hands. These questions are always boldly accentuated at this season of the year in Buffalo, when after the close of navigation so many lake and canal workers are discharged from service. An increase of the sick-rate follows steadily in the track of idleness.

At a period when every avenue is exhausted to improve vital statistics, and especially when Buffalo has been so conspicuous through the marvelous reduction of her death-rate, it becomes her municipal officers to exercise watchful care lest through some neglect this record fails to be maintained. In addition to the ordinary demands upon private charity, which liberal people meet with great promptitude, the question is now presented to municipal officers as to the proper method of dealing with a large class of idle laborers that are annually foisted upon us by the discharge from service of those who can usually obtain employment in summer, but who in winter are compelled to makeshift as best they can. If these men and women, together with the families dependent upon them, can be kept from hunger and cold they, generally speaking, will keep healthy and strong. If not, they will grow feeble, become sick, and in many instances die after prolonged suffering, which latter is often more painful to witness than death itself.

In order to meet the exigencies of the situation, shelter, fuel, food and clothing must be provided in ample quantities to prevent

suffering and to promote health. How can this best be done? An intelligent answer to this question will present a solution of the whole problem. To support these people in idleness would be the very worst form of charity that could be offered. If a fund could be created sufficient to provide for their daily necessities with the certainty of leaving them unemployed, it would be a sad exercise of a cardinal virtue. Employment is what these people need, and the only adequate way to meet the situation is to provide it promptly when needed.

The question, then, becomes one of method rather than means. How shall the idle be employed? How *can* they be employed? is the real question. Obviously, to depend upon the imperfect and slow methods of private employment would not meet an emergency. Hundreds of men must be set at work, and that instantly, when the crisis comes. Hence, the only feasible way out is for the municipal authorities to come to the rescue. Fortunately, in Buffalo there is ample opportunity, generally speaking, for the employment of a large force of men to advantage and with economy. The necessity for the work will surely arise, and the men not otherwise engaged will be found eager to do it.

The excellent quality of our streets and their cleanliness in summer is our boast and pride. We are justly famous in this regard, and are the envy of visitors from other cities. Fortunately, these visitors generally come to us in summer, when our 240 miles of smooth pavements on broad streets and shaded avenues, kept almost scrupulously clean, show to the best advantage, eliciting the merited admiration and praise of our guests. If, however, they should visit us in winter we fear they would not be prompted to unstinted commendation of the condition of our streets. An unlimited supply of snow and ice is bad enough for stone pavements, but when they accumulate on the asphalted streets the condition becomes almost unendurable.

The business traffic on Main street has become so enormous that due regard for safety of life and limb, as well as economy in horses and carriages, demand that every precaution be taken to keep it clear of all obstructions, no matter whether of a natural or artificial kind. This means, in our view, that snow should be removed as fast as it falls between the foot of Main street and High street, and on the cross-streets far enough east and west of Main to make traffic comfortable as well as safe. This should be done so well as

to prevent absolutely the accumulation of ice within the limits named. Such scenes as are witnessed every spring on some portions of Main street, as well as on some of the cross-streets, of which Chippewa may be cited as an example, in the cleaving of ice that is from one to three feet in thickness, piling it in great heaps and allowing it to melt in slow and uncertain processes, or to be carted away at the pleasure of the street commissioner, ought never to be repeated in a city with the conditions and opportunities that all concede belong to Buffalo. These provincial methods, pertaining to a period long past, ought not still to prevail in this city if we would hold it up as a model in municipal administration as well as an ideal for business or residence purposes.

New York, formerly one of the worst governed cities, is rapidly becoming the best, and its street cleaning department is an example of excellence that may well challenge admiration and serve as a model for other cities. With its street cleaning brigades, clad in their white sanitary uniforms, attacking the snow in the business parts of the city and clearing it away before noon on snowy days, a spectacle is furnished that becomes an object lesson in street sanitary police regulations.

But let us return to our purpose. If the street department of Buffalo were authorised to employ an adequate number of idle men to keep the business part of the city entirely free from snow and ice during the approaching winter, we are quite sure that it would receive the approbation of the entire people. Business men will praise it because the approaches to their stores, shops and factories have been accessible at all times without inconvenience or danger. Owners of horses and carriages who drive or ride for either business or pleasure will bless it for its humanity to animals, to say nothing of the saving in wear and tear of vehicles. The poor and unemployed will certainly send up a prayer of approval, while philanthropists, sanitarians and progressive people everywhere in the city will say, "Well done, good and faithful servants," to all concerned in consummating a reform in the economics of municipal authority so devoutly to be wished. The municipal government should make haste to avail itself of such a splendid opportunity to contribute its influence and power toward the prevention of disease.

TOPICS OF THE MONTH.

THE Dental Department of the University of Buffalo opened its new building, situated on the university grounds facing Goodrich street, on Tuesday evening, October 20, 1896. The ceremonies included a prayer by the Rev. Thomas R. Slicer, the formal transfer of the property by the contractors, Henry Schaffers' Sons, an address by Dr. W. C. Barrett, dean of the faculty, an address by Hon. James O. Putnam, chancellor of the University, and remarks of congratulation by Dr. M. D. Mann, dean of the Medical Department.

The feature of the evening was an address by Mr. Melvil Dewey, state librarian and secretary of the regents of the University of the State of New York. Mr. Dewey was very cordially received and spoke in part as follows :

There are four reasons why I have chosen as the topic of my remarks this evening, the subject, Buffalo as an Educational Center.

The first of these reasons is its geographical situation, which fits it to be the center of everything. Even the most casual observer can see that its position is one of especial advantage, and that it occupies a remarkable location on this planet.

The second reason is that Buffalo is the second city in the State of New York, and that this state has the best educational facilities of the United States, and that the time is coming when no spot on the globe will be better educated than the Empire State. The time is not far distant when we shall draw students from other countries, as our students now go abroad.

The third reason for my choice of a topic is that Buffalo has done so much, and my fourth reason is that it has done so little.

My principal theme will be the second reason which I have given, and I propose to tell some of the reasons why New York is the best State in the Union from the viewpoint of education, and something of the work that is being done by the University of the State of New York, under the direction of its regents.

Mr. Dewey then went into an exhaustive history of the foundation and organisation of the university of the state, and dwelt on the excellence of the laws governing it and the work that is being done now by it along the lines of higher education. He dwelt particularly on the working value of the educational institutions that are not generally classed as such—the libraries, the study clubs, the museums and the university-extension lectures under the direction of the regents of the university. Returning to the third and fourth reasons he had given for the choice of his subject, he said :

The reason for my third purpose is that the fame of the Buffalo medical school is enviable, and competent physicians who have examined it speak with warm approval of the work that is being done here. The same may be said of the other institutions of learning in this city. You will wonder why, then, I stated my fourth reason to be that Buffalo has done so little. I will tell you. Buffalo has done little for the cause of education in that she has not yet a free public library. The time is upon us when a citizen of a village or a town will be just as mortified to confess that his home contains no free library as he would be to admit that there were no free public schools. It would cost too much, is the plea. The number of cents each taxpayer would have to pay to make your magnificent library free to the public, absolutely free, is so small that it is not worthy of consideration. Then, there is one more cause for grief on Buffalo's behalf in that she has not yet endowed her University. It ought to be known that it pays commercially to maintain educational institutions, and I hope that Buffalo is merely waiting for the time to be ripe and not sitting in heedless lethargy and paying no attention to this great and vital subject.

At the conclusion of Mr. Dewey's address a vote of thanks to the speaker was adopted unanimously, and the visitors were invited to inspect the new building and its fittings.

THAT Buffalo needs a free public library goes without saying. The only wonder is that it has not been settled upon long before this. Our citizens ought to be very thankful to Mr. Dewey for calling attention to this important factor in education and to the necessity of its speedy establishment. The additional cost of converting the Buffalo library into one that would be absolutely free to the public is so trifling in comparison with the results that would follow that our city fathers need not hesitate to incur it. "It ought to be known that it pays commercially to maintain educational institutions," says Mr. Dewey. This was a most happy way to present the matter, since it is about the only avenue of approach to the average mind in the city legislature. Let us have a free city library, by all means, Mr. Common Councilman, and thus testify that we intend to keep intellectual light abreast of electric illumination. We are quite content to have Niagara furnish the power for the latter, but let Buffalo herself furnish the motive force for the other.

THE moment the Buffalo library is made free it will receive contributions of books, as well as money, that will constantly increase

its efficiency and value. In this connection we are pleased to note that Dr. De Laskie Miller, of Chicago, according to the *Medical Recorder*, has lately given his entire collection of books to the Newberry library. Professor Miller, a native, we believe, of Niagara county, has succeeded in collecting one of the most valuable private medical libraries in Chicago, composed principally of standard works, ancient and modern, and it is such a library as well might be the envy of any physician. How long will it be before we shall hear of similar contributions to the Buffalo free library?

THE State Board of Health has formulated new blanks for use in the bureau of vital statistics. These appear to be an improvement on the old form, being simpler and yet containing provisions for more information. They will result in great saving to the health department in this city, inasmuch as the blanks are to be bound in book form as they are filed. This will obviate the necessity of manufacturing expensive record books in which to transcribe them.

THE new law regarding the employment of children in offices and factories that went into effect in September, 1896, is about to be rigidly enforced.

The department of health is preparing to carry out the provisions of the new state law factory inspection. The office staff has been kept busy for some time and the work will continue so long as the law is in force. This law obliges all children under 14 and 16 years of age, who are employed at any work, to file certificates furnished by the health department. These certificates contain descriptions of the children, the kind of work at which they are employed, and states whether they are physically able to perform the duties. The department furnishes the certificates after an affidavit has been made by the parents or guardian of the child, stating the place and time of birth. An affidavit must also be made by a school-teacher that the child has attended school for at least one school year. All of those certificates and blank affidavits are provided by the health department. There is a law which provides that no one authorised to administer an oath may make any charge for administering the oaths required by this new law. Children who desire to work only during the school vacation must also obtain certificates which state that fact. No one may legally employ any child who cannot produce the necessary certificate.

THE collection of garbage at Chicago, according to the *Medical Recorder*, has been transferred from the department of public works to the department of health. This is a reform upon which the windy city is to be congratulated. Such a revolution in the method of disposal of garbage ought to work to the advantage of any city adopting it, and we hope Buffalo will soon follow Chicago's good example. There can never be too great circumspection exercised in reference to the disposal of garbage. No doubt when garbage receptacles are kept clean and stationed in the midst of sanitary surroundings, a great step in the prevention of disease will be accomplished. Only the well-trained officials of the health department can be made to appreciate this important fact.

Moreover, under the health department we would undoubtedly be relieved of the barbarous practice of collecting garbage between the hours of five and eight A. M. If it were known abroad that such a heathenish custom prevailed in this city, it would no doubt prevent many a man from seeking it as a residence, to say nothing of making us the laughing stock of the rural districts. Even Rochester would be amused that we tolerate such a provincial method. The commissioner of streets should make haste to correct this abuse if he would preserve the good name of our fair city. Unless he does, this may become a question for the health department to interfere with and suppress as it would any other nuisance.

CHRISTIAN science and Schlatterism received a just rebuke in the columns of the *New York Tribune*, November 19, 1896, as follows :

Doctors are said to be like verbs—regular, irregular and defective ; but nobody has yet attempted a scientific classification of the swarm of mystical and supernatural healers to whom the example of Schlatter at the West a few months ago seems to have pointed the way. They rise up in multitudes and pervade all localities near and far, and strangely enough none of them seem to lack followers and believers. It is a curious delusion which reposes faith in their spells, but it is as old as human infirmity, and will probably last as long. The fool we have always with us, and it is not, therefore, a matter of legitimate surprise that we must sometimes have the "healer." He never heals anybody, and individually is soon forgotten, but this type abides and abounds in all lands and seasons, being now and here especially prevalent.

MISS CLARA BARTON, president of the National Red Cross society, who, it will be remembered, went to Armenia last winter to distribute relief among the suffering Christians in that unhappy country, has made public her report. It appears that the Turkish government, which means the Sublime Porte, itself, denied Miss Barton official access to Armenia, but permitted the distribution of relief through her instrumentality as an individual.



(From THE LITERARY DIGEST, New York.)

CLARA BARTON.

The report made by Miss Barton is quite exhaustive and covers the work of the several expeditions sent out from Constantinople. It shows that the work had its inception in the reports of the terrible sufferings endured by the Armenians, gives an account of the sailing of the relief party, of delays in sending out the first expedition on account of the adverse American newspaper comment concerning the Turkish government, and speaks of the various relief expeditions. Miss Barton returns thanks to the press of the United States, to the contributors to the relief fund and to other agencies for aid in carrying out the purposes of the mission.

In conclusion, she says that notwithstanding all that has been done through all agencies, infinitely more remains to be done by someone, for "between the Archipelago and the Caspian seas, the

Black and the Mediterranean," she continues, "are today living a million and a half of people of the Armenian race, existing under the ordinance of at least semi-civilisation and professing the religion of Jesus Christ. According to the stated estimates of intelligent and impartial observers of various countries and concurred in by our own agents, whose observations have been unrestricted, from 100,000 to 200,000 of these persons, men, women and children, are destitute of shelter, raiment, fire, food, medicines, the comforts that tend to make human life preservable, or any means of obtaining them, save through the charitable beneficence of the world. The same estimates concur in the statement that without such outside support at least 50,000 of those persons will have died of starvation or perished through accumulated hardships before the 1st of May, 1897.

"None of us has found any better medium for the dispensation of charitable relief than the faithful missionaries already on the ground and our Government officers, whose present course bespeaks their elective interest."

The report of George H. Pullman, financial secretary, shows that there was expended on the relief mission a total of \$116,326, of which \$7,526 was on account of administration.

We take from the *Literary Digest* the following sketch of Miss Barton's life :

Clara Barton was born in Oxford, Mass., in 1838. She had a thorough education in the public schools of that city, supplemented by a course of study at Clinton, N. Y. For some time she was a teacher in the public schools of Oxford, and subsequently was principal of the first public school at Bordentown, N. J. She was engaged in the Patent Office at Washington in 1861, when the war introduced her to the work that has made her name famous in all lands. Resigning her position in the Patent Office, she devoted herself exclusively to hospital work. As the need increased, she hired a vehicle and went to the scene of the slaughter—Culpepper Court House being her first destination.

Miss Barton was on the battle-fields of Cedar Mountain, Antietam, Fredericksburg, Falmouth, and at the siege of Charleston. How many lives were saved in those scenes of slaughter through her prompt ministrations none can estimate. With her band of trained nurses she did noble service and continued in it to the end of the war.

With a frame exhausted by continuous labor she went, by the advice of her physicians, to Europe to recuperate. She was there when the Franco-Prussian war broke out, and she immediately offered her services. At Metz, in Paris, and in other scenes of the conflict, she minis-

tered to the wounded and comforted the dying. The Emperor of Germany acknowledged her services by the presentation of the Order of the Iron Cross, and other distinguished personages gave her grateful proofs of tangible esteem. Since then, as president of the American Red Cross Society, she has rendered beneficent services in the Ohio floods, the Michigan fires, the Charlestown earthquake, the Johnstown flood and other calamities of national import.

Personal.

HON. WM. P. LETCHWORTH, for twenty-three years a member of the state board of charities, has resigned his office, and Mr. Harvey W. Putnam, of Buffalo, has been appointed to fill the vacancy. Mr. Letchworth was president of the board for a number of years, and during the entire period of his membership, no matter in what capacity he has served, he has been a consistent, devoted and able worker in the cause of organised charity, giving his time and money freely for the betterment of the poor, the insane and even the criminal. We hope his advice will still be available to the state, even though he has felt compelled to retire from active labor. Mr. Letchworth's whole life has been an exemplification of the precept, "And the greatest of these is charity."

Mr. Putnam, who succeeds Mr. Letchworth, is well known in this city as a lawyer and as secretary of the civil service commission. By birth and education, as well as by training during his young manhood, he has become well prepared for the work before him, and we wish him all the success that distinguished his predecessor. We could not say more.

DR. WILLIAM B. MAY, of Buffalo, formerly of the police force, a graduate of Buffalo University Medical College at the last annual commencement, has established his office at 847 Clinton street. Dr. May was a popular and efficient officer and acquired his professional training in service. He deserves success in his profession and no doubt will attain it.

HON. TIMOTHY L. WOODRUFF, president of the Maltine Manufacturing Company, has been elected lieutenant-governor of the state of New York by the phenomenal majority of a quarter of a million of votes. Mr. Woodruff is at present park commissioner of Brooklyn, and is a man of affairs, trained to thought and action, a

graduate of Yale, and is every way fitted by birth, education and wealth to adorn the great office for which he has been chosen. Lieutenant-Governor and Mrs. Woodruff will gracefully adorn the official and social life of Albany for the next two years.

DR. JACOB MILLER, of Buffalo, will visit Europe early in January, 1897, for professional advancement and recreation. He will spend some time in the clinic of Lepold, at Dresden, and will also stay a few weeks at Berlin, where he will take a course in pediatrics. Dr. Miller will remain abroad about six months.

DR. BYRON H. DAGGETT, of Buffalo, has removed from 258 Franklin street to 2732 Main street. His office is located at 847 Ellicott Square. Hours : 11-1, 2-4 and 7 P. M.

Obituary.

DR. THOMAS HERRING BURCHARD, of New York, aged 48 years, died suddenly of cardiac disease, November 15, 1896, at his home, 7 East 48th street. He graduated from Bellevue Hospital Medical College in 1872, and is reported to have advised operative interference as early as 1873 in perforative perityphlitis (appendicitis). He was an active professional man, gifted as a writer and speaker as well as a teacher. He made numerous contributions to the literature of medicine, was a member of the leading medical societies and a surgeon to Charity Hospital, now known as New York City Hospital. Of late years he had established himself in summer practice at Saratoga. He had just returned from a tour abroad for the benefit of his health and was about to resume practice when his fatal illness overtook him.

SIR BENJAMIN WARD RICHARDSON, Bart., M. D., F. R. S., etc., died of apoplexy at London, November 21, 1896, aged 68 years. He was honorary physician to the royal literary fund, the newspaper press fund and the national society of schoolmasters, at London. He was born in 1828, and was an honorary member of the Philosophical Society of America. He has been president of the Medical Society of London and was thirty-two times president of the St. Andrew's Medical Graduates' Association. He took an active

interest in the development of bicycling and was president of the Society of Cyclists. He was knighted in 1893. He was a frequent contributor to medical literature, and was noted as an author, especially in hygiene.

SIR JOHN ERIC ERICHSEN, F. R. S., LL. D., F. R. C. S., died at Folkestone, England, September 23, 1896, aged seventy-nine years. At the time of his death Mr. Erichsen was Emeritus professor of surgery and consulting surgeon to University Hospital and to many other medical charities. He has been president of the Royal College of Surgeons of England, of the Royal Medical and Chirurgical Society, and of the surgical section of the Great International Medical Congress of 1881. He was surgeon-extraordinary to the Queen, and has been president of University College, London, since 1887. Mr. Erichsen was one of England's best surgeons—and probably England's best teacher of surgery.

DR. JAMES BISSETT MURDOCH, of Pittsburg, died at his home, 4232 Fifth avenue, in that city, October 29, 1896, aged 66 years. He was a native of Glasgow, but came to America when a child and settled in the State of New York. He graduated from the College of Physicians and Surgeons in 1854, served in Bellevue Hospital, was appointed surgeon of one of the Atlantic liners and later located at Oswego. He served as surgeon of the Twenty-fourth New York Volunteers during the first two years of the civil war. He went to Pittsburg in 1872, where he resided until his death. He was an active member of the several medical societies in his vicinity, state, county and city, and of the American Association of Railway Surgeons. He was professor of surgery in Western Pennsylvania medical college, and a member of the surgical staff at the hospital. His name is well known in medical literature. He was a ready debater and so became prominent in medical society discussions. Dr. Murdoch was twice married, and his widow, two sons and two daughters survive him.

Society Meetings.

THE Southern Surgical and Gynecological Association held its ninth annual meeting at Nashville, November 10, 11 and 12, 1896. It was most successful, scientifically and socially, and the attendance was large. Dr. E. S. Lewis, of New Orleans, in his presi-

dential address, gave a review of the work of the association and spoke in high terms of the value of its annual meetings. On Tuesday evening, November 10th, a banquet was tendered the association at the Nicholson House, at which Mr. John Bell Keeble, city attorney, delivered an address of welcome that was responded to by the president.

Dr. Lewis S. McMurtry, of Louisville, chairman of the council, reported the following for membership, recommended by the council: Drs. C. P. Noble, Philadelphia; J. Munson Handley, Baltimore; E. Lomax Gwathmey, Norfolk, Va.; J. Howell Way, Waynesboro, N. C.; W. P. Matthews, Richmond, Va.; W. H. Doughty, Augusta, Ga.; W. H. Myers, Fort Wayne, Ind.; W. D. Haggard, Jr., C. R. Atchison, Paul F. Eve, J. R. Buist and C. S. Briggs, Nashville. After the association adjourned the visitors left by special train for Belle Meade to partake of a barbecue.

The following-named officers were elected for the ensuing year: President, Dr. George Ben Johnston, of Richmond, Va.; vice-presidents, Dr. F. W. McRae, of Atlanta, and Dr. W. E. Parker, of New Orleans; secretary, Dr. W. E. B. Davis, Birmingham; treasurer, Dr. A. M. Cartledge, Louisville; chairman of the committee of arrangements, Dr. H. H. Mudd, of St. Louis; member of the judicial council, Dr. E. S. Lewis. The association will hold its next meeting at St. Louis, beginning the second Tuesday in November, 1897.

THE Buffalo Academy of Medicine held meetings during November as follows:

Section on Surgery.—Thursday evening, November 5th, when the following papers were read: Historical sketch of lithotomy, by Dr. John Parmenter; Comparative merits of the operations for stone in the male, by Dr. John B. Deaver, of Philadelphia; Inflammatory diseases of the prostate and its appendages, by Dr. J. Henry Dowd. Drs. Herman Mynter and William H. Heath led the discussion.

Section on Medicine.—Tuesday evening, November 10th, when papers were read as follows: Case of chronic diarrhea successfully treated by lavage, by Dr. S. A. Dunham; Importance of early attention to hypertrophy of the naso-pharyngeal lymphoid tissue, by Dr. F. W. Hinkel; Reflex effects in the pharynx and mouth of intranasal disease, by Dr. Horace Clark.

Section on Pathology.—Tuesday evening, November 17th, when the following paper was read : Pathology of appendicitis, by Dr. Herman Mynter.

Section on Obstetrics and Gynecology.—Tuesday evening, November 24th, when the following papers were read : Albuminuria of pregnancy : Etiology and pathology, by Dr. A. A. Jones ; treatment, by Dr. Henry R. Hopkins.

THE Second Pan-American Medical Congress, that was held in the City of Mexico, November 16–19, 1896, appears to have been a conspicuous success. The president, Dr. Manuel Carmona y Valle, made a timely address ; Dr. William Pepper spoke on the aims of the congress ; and Señor Don José M. Gamboa took for his theme, International sanitary legislation. The president of the republic, General Porfirio Diaz, who attended with his cabinet, gave a brief address of welcome, expressing the pleasure of his government in being able to assist in advancing the interests of the congress. Dr. A. Vander Veer, of Albany, read a paper in the gynecological section. Among those present from New York were Dr. James D. Spencer, of Watertown, president of the medical society of the State of New York, and A. Walter Suiter, of Herkimer. The third congress is to be held at Caracas, Venezuela, in 1899.

THE Medical Society of the County of New York held its ninety-first annual meeting at the New York Academy of Medicine, No. 17 West Forty-third street, October 26, 1896. The attendance was large and much interest was shown in the friendly contest for offices which resulted in the election of the following : President, Landon Carter Gray ; first vice-president, Robert A. Murray ; second vice-president, Nathan Edwin Brill ; secretary, Charles H. Avery ; assistant secretary, William E. Bullard ; treasurer, John S. Warren ; censors, Seneca D. Powell, B. Farquhar Curtis, Floyd M. Crandall, Walter Lester Carr and Edward D. Fisher. Dr. Prince A. Morrow read a paper entitled Some practical phases of the leprosy question, and Dr. John A. Fordyce showed a number of lantern slides to illustrate remarks on diseases of the skin.

THE American Association of Obstetricians and Gynecologists, at its ninth annual meeting, held at Richmond, Va., elected the following-named officers for the ensuing year: President, James F. W. Ross, M. D., Toronto ; vice-presidents, George Ben Johnston, M. D.,

Richmond and John C. Sexton, M. D., Rushville, Ind.; secretary, William Warren Potter, M. D., Buffalo; treasurer, Xavier O. Werder, M. D., Pittsburg. Executive council: Charles A. L. Reed, M. D., Cincinnati; Lewis S. McMurtry, M. D., Louisville; A. Vander Veer, M. D., Albany; J. Henry Carstens, M. D., Detroit; and William E. B. Davis, M. D., Birmingham. The next annual meeting was appointed to be held at the Cataract House, Niagara Falls, N. Y., Tuesday, Wednesday, Thursday and Friday, August 17, 18, 19 and 20, 1897.

THE Western Surgical and Gynecological Association will hold its fifth annual meeting at Topeka, Monday and Tuesday, December 28 and 29, 1896. All regular physicians and surgeons are cordially invited to attend and take part in the proceedings. This is one of the prominent and successful societies in the West, and was organized some years ago at Topeka. Its meetings have all been well attended and full of interest.

THE Southern Section of the American Laryngological, Rhinological and Otological Society will hold its next meeting at New Orleans, March 3 and 4, 1897. This date has been selected, as it will permit visiting members to see New Orleans during the Carnival Season and will enable them to secure half-rate railroad transportation.

College and Hospital Note.

THE faculty of Albany Medical College is to be congratulated upon receiving the donation of a building for pathological and bacteriological work, the gift of Mr. Matthew W. Bender, of Albany, to be known as the Bender hygienic laboratory. The building was formally dedicated, Tuesday evening, October 27, 1896, to which we acknowledge the receipt of an invitation. The ceremonies consisted in part of the formal presentation of the building to the board of trustees in the name of the donor by Harry H. Bender, Esq., an address on the history of the building by Dr. George E. Gorham, reception of the building on behalf of the board of trustees by Dr. A. Vander Veer, and an address commemorative of the event and the importance of pathological and bacteriological study by Dr. A. Jacobi, of New York.

Chautauqua County Notes.

THE medical society of the county of Chautauqua will hold its next semi-annual meeting at Fredonia, on Tuesday, January 12, 1897. It is proposed to make appendicitis the principal theme for discussion.

Dr. M. N. Bemus, of Jamestown, who has lately spent some time in New York among the various hospitals, has returned and resumed his professional work.

The village of Ripley has been visited with typhoid fever, which has created alarm among the inhabitants as well as a demand for nurses from Buffalo.

Dr. Franklin A. Stevens, late of Sinclairville, and formerly of Dunkirk and Falconer, has located himself in Iowa for the practice of his profession.

Dr. W. A. Putnam, of Westfield, is recovering from a prolonged attack of pneumonia. We trust he will be soon restored to his usual vigor.

Dr. and Mrs. N. G. Richmond, of Fredonia, have lately returned from a fortnight's visit at New York and Boston.

Book Reviews.

A TREATISE ON SURGERY. By American authors. Edited by ROSWELL PARK, M. D., Professor of Surgery and Clinical Surgery at the Medical Department of the University of Buffalo. In two octavo volumes, comprising 1,603 pages, with 807 engravings and 38 full-page plates in colors and monochrome. Volume I., General Surgery and Surgical Pathology. Volume II., Special Surgery. Philadelphia: Lea Brothers & Co. 1896.

The literature of surgery is especially rich in quantity and quality at the present time. Many new treatises have been added to it within the last few years, while many old ones have undergone revision in new editions put forth. Whenever, therefore, a new candidate for professional favor appears it is pertinent to scrutinise its claims to literary and scientific preference. In the present instance we shall examine the work all the more impartially because the editor, who is also in great part author, is a resident of our own city where he has achieved fame as a teacher and writer.

At the outset let us call attention to the fact that a number of departments have recently been added to the surgical field, so that

a treatise of today differs from that of yesterday in many essential particulars. This fact has been conspicuously held up to view by Park in the work now under consideration. The first part of Volume I. is devoted to the consideration of surgical pathology, the five chapters of which are written by the editor himself. This is one of the departments in which this work may properly claim advantage over many others. Hyperemia being the first step in pathological change, receives appropriate discourse in the first chapter of the book. It is a condition too little understood and too often confounded with congestion in type or speech, in ignorance or carelessness. The minute pathology of the blood is a field that has lately demanded increasing study and research. The importance of a knowledge of blood pathology is of constantly enlarging importance to the surgeon, and he will gain light on the subject from this chapter. Inflammation is always an engaging field of surgical research and an intricate knowledge of its subtle and various manifestations is essential to surgical skill. The chapter on ulceration and gangrene presents the interesting and important features of these subjects.

The second part, devoted to surgical diseases, opens with a chapter on autoinfection. Here is one of the most absorbing subjects presented in modern surgical pathology. Park emphasises the importance of a thorough understanding of autointoxication, asseverating that among the most predisposing causes of what may a little later appear as distinct surgical sepsis are retained excrementitious products. That enterosepsis may be mistaken for surgical fever cannot be too strongly accentuated, and is a point which the author makes clear. The lesson this chapter teaches is the practical one of careful preparation of patients for surgical procedures, a subject so often loosely insisted upon in magazine papers and discussions, but for which here are given substantial and convincing reasons. The surgical fevers and septic infections naturally come next, and these are followed by two chapters on surgical diseases common to man and the domestic animals. These all possess intense interest and are discussed in the light of the newest pathology. The editor is the author of these four chapters, together with an appendix to Chapter IX. on leprosy.

The next following chapters on syphilis and gonorrhea are profitable and deserve special remark with reference to their illustrations, particularly plates VIII. and IX.—early rupial syphilide and tubercular ulcerating syphilide respectively—the latter showing lesions in different stages.

Shock and collapse always present questions of the deepest concern to the surgeon. The editor contributes but a brief chapter to their consideration. The question of immediate operation after shock often calls for the keenest surgical judgment. We feel disposed to challenge the use of the word "diagnosed," as it occurs in this chapter and other places in the work. "Diagnosticated" is more euphonious, if not better English. The next four chapters,

XIII., XIV., XV. and XVI.—Scurvy and rickets, Surgical aspects and sequelæ of other infections and diseases, Poisoning by animals and plants, and Acute intoxications, including delirium tremens—are also contributed by the editor. It seems rather odd to find delirium tremens considered in a surgical text-book. Nevertheless, it is a disease that often complicates surgical cases, and this the author considers a sufficient reason for dealing with it in this place, an opinion in which we fully concur.

Coming now to Part III., we find surgical principles and methods, together with minor procedures, adequately set forth. The first two chapters, one dealing with hemorrhage and the other with minor surgery and bandaging, are written by our fellow-townsmen, Prof. Parmenter. Without entering into detail, we may observe that we have rarely seen as much useful information condensed into as little space, all of which will prove of special advantage to the young surgeon. The chapter on anesthesia and anesthetics singularly enough is not contributed by a surgeon, but no one will question the ability of Hobart Amory Hare to deal with the subject in an able manner. Perhaps, too, it were better to turn on the light from the medical and therapeutical standpoints, since these departments must be invoked in case of threatened anesthetic danger.

Surgical diagnosis calls for the profoundest surgical knowledge and skill, as well as the ripest experience. A chapter on this subject is well presented by Dr. Chauncey P. Smith, also of Buffalo.

Under the head of Injury and repair, to which Part IV. is devoted, we find wounds, gunshot wounds, processes of repair, treatment of wounds (antisepsis and asepsis), considered by Prof. Charles B. Nancrede, in four chapters. They are all well written and are characterised by experience in teaching and a thorough knowledge of the subjects.

Surgical affections of the tissues and tissue-systems forms the title of Part V., and the opening chapter on cysts and tumors is contributed by the editor. Park's classification of tumors is the best we have seen. If we had space at command we should like to treat of this part of the work in some detail, since its importance would seem to merit extended comment. We must, however, content ourselves with simply calling attention to this section of the text-book in which Park shows originality of classification and skill in dealing with the subject. The tables of differentiation between benign and malignant growths on pages 440-441 are unusually complete, and will be found valuable aids to diagnosis. It cannot be too often accentuated that early diagnosis is of the greatest importance in suspected malignancy, and that a grave responsibility in this regard rests upon the general practitioner of medicine as he usually first sees these cases.

Surgical diseases of the skin afford Prof. Hardaway an opportunity to present some interesting text, which is well illustrated. Another short chapter by Prof. Parmenter covers the essential

ground in relation to burns, scalds and frost-bites. A very entertaining section is contributed by Dr. Burrell on affections of the muscles, tendons, tendon-sheaths, bursæ and fasciæ. This is a most practical chapter and one that deserves to be studied by every young physician. It is illustrated with rare completeness. Injuries and diseases of the lymphatic vessels and nodes by Prof. Gerrish; Surgical injuries and diseases of the veins by Prof. Hollo-way; Surgical injuries and diseases of the arteries by Prof. Eve; Injuries of the joints and joint structures and operations on joints by Prof. Ransohoff; Surgical diseases of the osseous system by Prof. Park; Fractures and dislocations by Prof. Mudd, constitute the remaining chapters in this volume.

The second volume is devoted to the consideration of special or regional surgery. The opening chapter deals with surgical diseases and injuries of the head, is written by the editor, is a field in which Prof. Park has heretofore displayed great knowledge, and in it will be found recorded his latest and ripest experience. The illustrations, speaking generally, are new and unique.

The next chapter considers injuries and surgical diseases of the spine, and is written by Edward H. Bradford, whose name is well known in orthopedic literature. Here, too, both text and illustrations are of absorbing interest. Surgical diseases and injuries of the heart and pericardium, with surgery of the large blood-vessels, including ligations, forms the subject of a chapter written by Prof. Eve. This and the following chapter on surgical diseases and injuries of the respiratory organs, by Prof. Delavan, contain interesting data, cases and illustrations. Two chapters on surgical diseases and injuries of the face and neck are contributed by Prof. Souchon, in which are found some novelties, including Dr. G. W. Wende's case of rhinoscleroma, first published in the *JOURNAL*, March, 1896, p. 642.

We now come to a chapter on surgery of the chest, written by Prof. Dennis, which embraces the present status of this branch of new surgery. It is one of the best presentations of the subject we have seen. Following it are considered surgical diseases and injuries of the mouth, tongue, teeth and jaws, by Prof. Bevan, to which is added an appendix by Dr. Brophy on early operations for closure of cleft palate. Surgery of the abdomen, which now is of such absorbing interest, is jointly written by Drs. Richardson and Cobb. The former also contributes the chapter on hernia, which is in every way an admirable presentation of the subject. Diseases of the rectum and sigmoid flexure, by Kelsey, and genito-urinary surgery, by Belfield, follow in their natural order of sequence, and then comes a short chapter on chancreoid by the editor.

The next chapter is devoted to the consideration of surgical diseases and injuries of the female reproductive organs, and is written by Prof. Etheridge. It would seem at first glance that rather a limited space had been given in this instance to the consideration

of a very large subject. Again, some might think that in view of such limitation the space might have been used to better advantage. On the whole, however, our conclusion is that in a strictly surgical work the author of this chapter has improved his opportunity to good advantage. Surgical diseases and injuries of the breast are next dealt with by Prof. Parker, and then follows amputations by Prof. Matas. Orthopedic surgery proper is considered in a chapter by Dr. Lovett. This is a branch of surgery in which there is constantly increasing interest, and this author deals with it in a scientific manner. He has illustrated his chapter with an admirable discretion that serves to strengthen his instructive text. In the next chapter we find plastic surgery treated of by Dr. Gerster, who illustrates his paper with numerous schematic drawings. Next following is a chapter on surgical injuries and diseases of the eye and orbit, by Charles Stedman Bull; then comes one on surgical injuries and diseases of the ear, by Prof. Blake. The final chapter is written by the editor himself, and is devoted to the consideration of skiagraphy, or the application of the Röntgen rays to surgery. It is a résumé of whatever is known of a subject still under investigation, and is illustrated with some beautiful plates.

The claim of this work to establish itself as a text-book justifies the assertion that, though it will not be likely to supplant some of the individual treatises that have become classics, it nevertheless presents so much that pertains to new surgery, and withal offers it to the profession in such a new way, as to deserve to be placed by their side, supplementing and complementing them in a useful manner. The rhetoric of the work merits remark for its excellence and the proof-reading has been of a quality to challenge approval, the errors being very few and insignificant. A reference made by Prof. Eve, Vol. II., page 127, should be corrected to read "BUFFALO MEDICAL JOURNAL, January, 1852, Vol. VII., page 479."

In concluding this imperfect résumé, the object of which has been to comment on the special features of the work rather than to critically review the whole, we may summarise those that stand out conspicuously as follows:

I. The pathology which it teaches, and especially that set forth regarding autointoxications, together with its classification of tumors.

II. Originality, both of cases cited and of illustrations, as well as the large number of each.

III. The stress laid upon diagnosis and the excellent treatment of this important department throughout the work.

IV. The fact that each volume can be purchased separately should be noted, though we doubt if it is a privilege that will often be exercised.

V. And, finally, the general arrangement and dress of the volumes—a part in which the publishers deserve to share praise.

The treatise, as a whole, is a credit to American surgery, and especially to the editor and his excellent staff of collaborators.

A MANUAL OF SYPHILIS AND THE VENEREAL DISEASES. By JAMES NEVINS HYDE, A. M., M. D., Professor of Skin and Venereal Diseases, Rush Medical College; Dermatologist to the Presbyterian, Michael Reese and Augustana Hospitals, and Consulting Physician to the Hospital for Women and Children, Chicago; and Frank H. Montgomery, M. D., Lecturer on Dermatology and Genito-Urinary Diseases and Chief Assistant to the Clinic for Skin and Venereal Diseases, Rush Medical College; Attending Physician for Skin and Venereal Diseases, St. Elizabeth Hospital, Chicago. Small 8vo. pp. 618. With forty-four illustrations in the text and eight full-page plates in colors and tints. Price, \$2.50. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

In the introduction of this classic American work, the authors state that, in consequence of the odium associated with venereal diseases, although they were often innocently acquired, this department of medicine became the prey of the charlatan.

There has been a noteworthy change, so that today some of the most cultivated, learned and distinguished physicians are content to labor and glean in the field that was once neglected, abhorred and loathed. Gonorrhea is most often a strictly venereal disorder; syphilis is more frequently a disorder of the innocent; while, as to fatality, gonorrhea in its ultimate results probably destroys more lives than does syphilis.

Both medical historian and archeologist are tracing these maladies back to the remotest antiquity, some even claiming that they originated at the beginning, "When the morning stars sang together." They are certainly hoary with age, although they were not diagnosed and differentiated as they have been in modern times. Buret says that the venereal virus marked the first steps of human progress along the highway of civilisation, and that syphilis, the daughter of prostitution, was born as soon as commerce, choosing love, presided over the exchange of caresses.

The physician has a sacred duty to perform in the management of these maladies, which bear shame, loathing and remorse, in guarding the secrets intrusted to him, protecting the innocent, conserving the family relation and bringing the sufferer to a successful termination of his disease.

Acquired Syphilis.—Syphilis is said to be acquired when transmitted in another way than by inheritance.

Etiology.—It has not yet been incontestably demonstrated that microorganisms are effective in the production of this disease. A syphilitic subject surely bears a germ-carrying secretion or virus, which is capable of transmission. When the syphilitic subject ceases to furnish an infectious virus cannot be definitely fixed, although the power to furnish such a virus is gradually lost.

Chancre.—Sole and constant characteristics are: (1) An incubative period; (2) a sclerosis, ranging widely in grade and duration in different cases; (3) a simultaneous enlargement and induration of the neighboring gland or glands.

Chancre is a symptom of a syphilis actually present. Chancres in their course mimic any or every cutaneous lesion, including the molecule, papule, vesicle, pustule, bleb, tubercle, tumor and ulcer. The chancre or syphilitic lesion appears at the site of inoculation in from ten to thirty days after infection or inoculation in a vast majority of cases. The mixed chancre at the outset presents all the characteristics of the chancroid, and afterward becomes indurated and develops a syphilitic bubo, followed by the general manifestations of syphilis. Chancres are usually single, but if two or more exist they are multiple from the beginning, unlike chancroids, since the secretion is nonautoinoculable. Induration is constant, varying in degree. Chancres portend the existence of syphilis in some degree. Its severity cannot be prognosticated from the primary local condition. The base of chancroid may be engorged, but not indurated. The bubo of chancroid is usually single and forms abscess. Destruction of the chancre by cautery or excision does not forestall or abort systemic infection, so that mild methods of treatment at this stage of the disease are advised.

As soon as the diagnosis of chancre is made, mercury by the mouth, the one efficient remedy, should be prescribed, with the intent of modifying the local lesion. The various manifestations of this protean malady are fully and elaborately set forth.

Treatment.—Hygiene, care and attention to the general health is the first consideration in the management of syphilis. As soon as there is absolute certainty respecting the existence of chancre, begin general treatment, with the understanding that it will not abate or mitigate the symptoms that will follow. A good, early breaking out, vivid and efflorescent, is a favorable augury. Continue treatment for two and a half to three years, at intervals. The manifold manifestations of syphilis are clearly described and many illustrations are given. A most complete and excellent table covering six or seven pages is given, setting forth the diagnostic distinction between chancroid, chancre and the common affections of the genital region.

Treatment of Syphilis.—Hygienic care controls in a great measure the gravity of this disease. Trust not exclusively the efficacy of drugs. This malady cannot be aborted or juggled. General treatment should be instituted as soon as an absolute diagnosis is made. Mercury is given as the sheet-anchor in the early stages and the preparations of iodine in the later periods. The iodine salts are falling into disrepute in the treatment of nervous syphilis and the great value of mercury in the grave complications of this disease is being recognised. The iodine salts are seldom used in the treatment of syphilis at the famous Aachen Springs, Germany. The interesting suggestion is made that syphilitic infection begets, to some degree, immunity to tuberculosis and carcinoma, owing to the inevitable war waged between microorganisms. It is also suggested that the male as well as the

female prostitute should be subjected to sanitary rules or laws proposed for preventing the spread of venereal diseases.

The antitoxin serum treatment of syphilis is ignored, although Borling, Hericourt, Richet and others report gratifying success following its use. Syphilitic antitoxic serum is regularly prepared and placed upon the market.

The short chapter on sexual hypochondriasis should be read by every practising physician, as well as every male of hypochondriacal tendencies. Acute urethritis is fully reviewed, concisely and conservatively considered, though nothing new is added. Treatment with the view of aborting gonorrhea and irrigation in the early stages of urethritis are not advised.

Chronic Urethritis.—The rôle of the gonococci in the etiology of chronic urethritis is not yet fully determined, and it seems that the pathological processes instituted by the gonococcus continue after the disappearance of the latter. A man with chronic urethritis has no means of knowing whether he may infect or not. Finger says that the conditions of safety are, the absence of gonococci, pus corpuscles and periurethral complications. Noeggerath says that men never fully recover from gonorrhea; that nine-tenths of the women whose husbands have had gonorrhea eventually develop pelvic inflammations due to infection. The twin authorship, referring to the treatment of posterior urethritis, advise reduction of the inflammation by deep irrigation, using a short tube and hydrostatic pressure, obtained by raising the reservoir to a sufficient height to overcome the compressor muscle by the force of gravity. In the experience of the reviewer this is often a painful and ineffectual process. Bauer says that so long as urine is passed with pathological force, posterior urethritis cannot be cured. If this be so, are not forced injections also harmful? There is a forceless way of irrigating the bladder and deep urethra.

The principle that hot saline solutions produce rhythmic action (see experiments of Isaac Ott with the bladder of a cat,) may be used for irrigating the urinary tract and thus avoid the traumatism of forced injections as well as that by a catheter. The presence of saline solution at a temperature of 90° or more, with the body postured as described in articles printed in the *BUFFALO MEDICAL JOURNAL*, March, 1893, and September, 1895, will cause a rhythmic or vermicular action of the urethra, so that the fluid is passed into the bladder without any more force than sufficient to dilate the anterior urethra. Civiale noted a swallowing action of the urethral canal and Rowden McNamara maintained that under certain conditions there was a vermicular action of the urethra bladderward. Careful attention to the details of this procedure will enable anyone to pass water into the bladder. A smaller return flow is essential, so that the fluid in the tubing shall not chill. Not only this, but a moving current is more insinuating than still water. By this method any man may irrigate the lower urinary tract with

relief and comfort at any stage of inflammatory action. Such irrigation prepares the subject of chronic urethritis for the necessary local treatment by instillation and insufflation.

This manual of syphilitic and venereal diseases should be read and studied by every physician. It is an honor to its authors and the American profession.

B. H. D.

THE STUDENT'S MEDICAL DICTIONARY. Including all the words and phrases generally used in medicine, with their proper pronunciation and definitions. Based on recent medical literature. By GEORGE M. GOULD, A. M., M. D., author of An illustrated dictionary of medicine, biology and allied sciences, etc., etc. With elaborate tables of the bacilli, micrococci, leucomains, ptomaines, etc. : of the arteries, ganglia, muscles and nerves ; of weights and measures, etc., etc. Tenth edition, rewritten and enlarged. Pages 701. Philadelphia : P. Blakiston, Son & Co., 1012 Walnut street. 1896.

In the preface to the tenth edition the author states that the volume at hand is especially adapted to the wants of medical students and should be regarded rather as an introduction than a substitute for the larger illustrated work. This volume nicely fills the gap, and to become acquainted with this dictionary is to prize it very highly. It is perhaps just as well to omit illustrations in a dictionary, as they must, of necessity, be small and hence incomplete. A really good dictionary is one which in a small space gives you dictionary information regarding the word you are seeking, its pronunciation and spelling. When a dictionary does more than this it becomes an encyclopedia and should be labeled such.

Dr. Gould has made an excellent dictionary out of this volume, and to those who possess an encyclopedia of some kind it serves as a most instructive introduction. The tables, especially of the eponymic diseases, the lines or lineæ, the ganglia, the monstrosities, ptomaines, poisons, reflexes, eponymic signs and symptoms of disease, are most valuable and save the busy practitioner much time and annoyance.

Dr. Gould has certainly found his forte in dictionary-making and is in a favorable position for carrying out much-needed reform in the spelling and pronunciation of many medical words.

W. C. K.

BORDERLAND STUDIES. Miscellaneous addresses and essays pertaining to medicine and the medical profession and their relations to general science and thought. By GEORGE M. GOULD, A. M., M. D., formerly editor of the *Medical News*. Price, \$2. Philadelphia : P. Blakiston, Son & Co., 1012 Walnut street. 1896.

From the title of this work one would imagine it a treatise on psychiatry or a series of essays dealing with that class of patients commonly designated as borderland cases. On reading the preface, however, this notion is soon dispelled by the statement that as

"many of the essays contained in this volume are at present out of print it has been thought best to reproduce them in a single volume." To these essays the author has added several hitherto unpublished and a number of editorial articles from the *Medical News*, published during the author's editorship of that journal. The list of essays and articles is as follows: 1. Vivisection; 2. Concerning medical language; 3. The rôle of the maternal instinct in organic evolution; 4. Life and its physical basis; 5. Is medicine a science? 6. The duty of the community to medical science; 7. Charity: organisation and medicine; 8. Hospitalism; 9. The etiology, diagnosis and treatment of the prevalent epidemic of quackery, being the addresses delivered by the author in this city before the graduating class of the University of Buffalo, May 3, 1892, and which aroused considerable feeling among the homeopathic practitioners; 10. The untrustworthiness of the lay press in medical matters; 11. The disorganisation of medical science; 12. Concerning specialism; 13. Medicine and city noises; 14. Medical aspects of life insurance; 15. Foot-ball—in this paper the author makes some excellent points against this un-American form of athletics; 16. Muscular development and use the conditions of health; 17. Everybody's medical duty; 18. The power of will in disease; 19. The apotheosis of hysteria and whimsicality; 20. Character; 21. The modern Frankenstein; 22. Dreams, sleep and consciousness; 23. Human life under denied sensation; 24. Immortality. These essays are all written in the author's forcible and earnest manner; they make interesting and instructive reading.

W. C. K.

ANATOMY, DESCRIPTIVE AND SURGICAL. By HENRY GRAY, F. R. S., Lecturer on Anatomy at St. George's Hospital, London. New and thoroughly revised American edition, much enlarged in text, and in engravings, both colored and black. In one imperial octavo volume of 1239 pages, with 772 engravings on wood. Price of edition with illustrations in colors, cloth, \$7; leather, \$8. Price of edition with illustrations in black, cloth, \$6; leather, \$7. Philadelphia and New York: Lea Brothers & Co., Publishers. 1896.

It is always an agreeable duty to write a notice of Gray's Anatomy. It has become a general favorite with teachers and students, and it will long remain so, we doubt not, while it continues on its present lines of clear and intelligent presentation of a subject that must form the foundation to an acquirement of medical knowledge.

This edition has been revised exclusively by American anatomists, whose aim has been to thoroughly adapt it to the requirements of teachers and students of the present day. Certain departments have undergone complete change, necessitated by the advances that have recently taken place in them. This is especially the case with those on the brain, the teeth and the abdominal viscera, histology and development.

The illustrations in Gray's Anatomy have always been one of its especial features ; each bone, ligament, muscle, nerve, artery and tissue has been appropriately labeled, and in late editions have appeared in colors where essential. In this edition 135 engravings have been added, bringing the aggregate up to a total greater than in any other anatomical work. Moreover, their quality is not second to any, a matter of paramount importance in such a treatise.

We have no hesitation in saying that, taken all in all, Gray's Anatomy affords the student more satisfaction than any other similar treatise with which we are familiar.

- I. THE MEDICAL NEWS VISITING LIST FOR 1897. Weekly (dated, for 30 patients) ; Monthly (undated, for 120 patients per month) ; Perpetual (undated, for 30 patients weekly per year) ; and Perpetual (undated, for 60 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60-patient Perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book, with pocket, pencil and rubber. Seal Grain Leather, \$1.25. Philadelphia and New York : Lea Brothers & Co.
- II. THE MEDICAL RECORD VISITING LIST AND PHYSICIANS' DIARY FOR 1897. New revised edition. With Calendar, Tables of Doses, Tables of Equivalents, Directions for Emergencies, Antisepsis, Disinfection, Special Memoranda, Cash Account, etc., etc., thirty and sixty patients per week, bound in black or red morocco leather, with flap, \$1.25 and \$1.50. Circular on application. New York : William Wood & Company, Publishers.
- III. THE PHYSICIANS' VISITING LIST (Lindsay & Blakiston) FOR 1897. Forty-sixth year of its publication. Sold by all booksellers and druggists. Philadelphia : P. Blakiston, Son & Co., 1012 Walnut street.

I. The *Medical News* visiting list is the first to make its appearance for the new year. It has been thoroughly revised for 1897, and is in every way adapted to the requirements of the present period. Thirty-two pages of the book are set apart for such useful data as the busy physician may stand in need of, such as an alphabetical table of diseases, a list of approved remedies, a table of doses, together with sections on examinations of urine, artificial respiration, incompatibles, poisons and antidotes, diagnostic table of eruptive fevers and the ligation of arteries. The mechanical execution of the book, both as to material and quality, is unexcelled and it is supplied with a ready reference thumb-letter index when desired at an additional cost of 25 cents. This standard visiting list is one of the best in the market.

II. The second in order of arrival is the well-known *Medical Record* visiting list. This, too, has been revised to meet the

requirements of the year 1897. The thirty closely-printed pages that precede the visiting list proper constitute a ready reminder on many subjects that are needful in every-day practice, but that need to be referred to frequently in order to be kept fresh in thought. The book before us is arranged for sixty patients a week, yet is so compact in form that it is not cumbersome in the pocket. Those who have been in the habit of using this visiting list will easily find themselves in favor with the new edition; and no doubt many new purchasers will be found to swell the aggregate sales beyond any previous figures.

III. The old-time favorite visiting list of Lindsay & Blakiston, now in the forty-sixth year of its publication, presents itself in its usually complete, compact and useful form. For the year 1897 it is issued as heretofore in three editions. The first or regular edition is arranged for from twenty-five to one hundred patients a week. For fifty patients and above it is issued in two volumes. A perpetual edition is printed like the regular, but without dates, so that it can be commenced at any time and used until full. A monthly edition, designed for the convenience of those who wish a new book every month. This visiting list is unsurpassed in practical usefulness.

AN AMERICAN TEXT-BOOK OF APPLIED THERAPEUTICS FOR THE USE OF PRACTITIONERS AND STUDENTS. Edited by J. C. WILSON, M. D., Professor of the Practice of Medicine and Clinical Medicine in the Jefferson Medical College; Attending Physician to the Hospital of the Jefferson Medical College, to the German Hospital and to the Pennsylvania Hospital, Philadelphia. Assisted by Augustus A. Eshner, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic; Attending Physician to the Philadelphia Hospital. Octavo, pp. 1326. Illustrated. Price, cloth, \$7; sheepskin and half morocco, \$8; half Russia, \$9.50. Philadelphia: W. A. Saunders, 925 Walnut street. 1896.

The plan of this work is unlike that of the ordinary treatise on therapeutics. It is a grouping of a series of separate articles on each subject chosen and, generally speaking, each author has confined himself to a single monograph. The exceptions are, Atkinson, John C. Da Costa, Augustus A. Eshner, James Stewart, George Dock, Edwin E. Graham, Wm. C. Dabney, J. T. Eskridge, Wharton Sinclair, Guy Hinsdale, Frederick A. Packard and the editor, Dr. J. C. Wilson. The article on Diseases of the stomach: duodenal ulcer, is written by Dr. Charles G. Stockton, of Buffalo. It is a concise setting forth of the therapy of this important group of diseases, and will be referred to by physicians who desire to keep pace with the literature on this subject.

It would be a difficult matter to present a detailed review of this book. To carefully analyse each one of its seventy-eight sections would consume more time and occupy more space than can

now be devoted to the work. However, it is only just to say that it is one of the most complete books of reference that has been presented to the profession on medicine in a long period of time; and never before have we had one that undertook to cover the field in this manner. The editor is an experienced teacher, as well as a man of literary accomplishments. He deserves the thanks of physicians for bringing out this treatise.

THE AMERICAN ACADEMY OF RAILWAY SURGEONS. Report of the second annual meeting, held at Chicago, Ill., September 25, 26 and 27, 1895. Edited by R. HARVEY REED, M. D., Columbus, O. Chicago: American Medical Association Press. 1896.

This organization has established itself on a substantial basis and presents its work in an attractive though modest volume. It is classified into chapters and is properly indexed so that its contents become easily accessible to whoever may search for its interesting material. A number of illustrations appear in the book, including which are half-tone portraits of the officers of the academy. Among the latter we observe an excellent reproduction of a photograph of Dr. C. M. Daniels, of Buffalo, who was first vice-president last year and is a member of the executive board at present. One of the good features of this volume is the appearance of the discussions in excellent form.

EIGHTEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF ILLINOIS. (Being for the year ended December 31, 1895.) With an Appendix containing the Official Register of Physicians and Midwives. 1896. Springfield, Ill.: Ed. F. Hartman, State Printer. 1896.

The Illinois State Board of Health under the directorship of the sturdy and accomplished Rauch enjoyed the confidence and respect of the entire medical profession, but we regret to say that of late its influence has deteriorated. This we attribute to political conditions that naturally arise in a state which has for its governor such a man as John P. Altgeld. We make no reflections on the personnel of the board as at present constituted.

The volume before us contains the official register of physicians and midwives for 1896, in which its chief interest centers.

BOOKS RECEIVED.

The Practice of Medicine. A Text-Book for practitioners and students, with special reference to diagnosis and treatment. By James Tyson, M. D., Professor of Clinical Medicine in the University of Pennsylvania, and Physician to the Hospital of the University; Physician to

the Philadelphia Hospital: Fellow of the College of Physicians of Philadelphia, etc., etc. Octavo, pp. xvi.—1183. Illustrated. Price, \$5.50. Philadelphia: P. Blakiston, Son & Company, 1012 Walnut street. 1896.

Medical Jurisprudence, Forensic Medicine and Toxicology. By R. A. Witthaus, A. M., M. D., and Tracy C. Becker, A. B., LL. B., and a staff of collaborators. In four royal octavo volumes. Volume IV., Toxicology. New York: William Wood & Company. 1896.

Twentieth Century Practice. An international encyclopedia of modern medical science. By leading authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In twenty volumes. Volume VII., Diseases of the respiratory organs and blood, and functional sexual disorders. New York: William Wood & Company. 1896.

Anatomical Atlas of Obstetric Diagnosis and Treatment. By Oscar Schaeffer, M. D. Small octavo, pp. xii.—234. Illustrated. New York: William Wood & Company. 1896.

Essentials of Physical Diagnosis of the Thorax. By Arthur M. Corwin, A. M., M. D., Demonstrator of Physical Diagnosis in Rush Medical College, etc. Second edition, revised and enlarged. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

Twentieth Year-Book of the New York State Reformatory, for the fiscal year ending September 30, 1895. With illustrations and anthropometric tables. Elmira, N. Y. 1896.

Transactions of the Texas State Medical Association. Held at Fort Worth, Texas, April 28, 29, 30 and May 1, 1895. Printed by order of the association. 1896.

Literary Notes.

IT PAYS TO TAKE YOUR HOME MEDICAL JOURNAL.—Many doctors have no idea of the number of inquiries which come to the local medical journal regarding the physicians living within the territory covered by such a periodical. The doctor hundreds of miles away from the home office of the journal may be as anxiously inquired about as the one living in the building where it is published. Life insurance companies, accident companies, bond and security companies, business houses and banks, corporations of all kinds and private individuals and firms write for information. The journal is looked upon as a sort of general bureau, which is drawn upon for information from all quarters. There is on the part of the journal a presumption that something is wrong with the medical man who does not take his home journal, and such *rara avis* needs to be very well known by the periodical to have its

warmest endorsement. Again, if the doctor pays his subscriptions promptly, it helps to throw light upon the question so often asked about his financial standing.—*Medical Sentinel*.

MESSRS. WILLIAM WOOD & COMPANY, medical publishers, New York, have just published a photogravure entitled Anesthesia. It is not intended to be a correct representation of the modern scientific method of administering anesthetics; but the picture idealises in an artistic manner one of the greatest discoveries of modern times. It is one of the series of pictures designed for physicians' offices and libraries, and in our view is the most attractive of the group. It is an exact copy of the original India proof engraving, and is printed on extra heavy plate paper suitable for framing.

THE *Journal of Nervous and Mental Disease* announces the following arrangement of its staff for 1897: Editors, Dr. Chas L. Dana, Dr. F. X. Dercum, Dr. Philip Coombs Knapp, Dr. Chas. K. Mills, Dr. Jas. J. Putnam, Dr. B. Sachs, Dr. M. Allen Starr; associate editors, Dr. Philip Meierowitz, Dr. Wm. G. Spiller; managing editor, Dr. Chas. Henry Brown, 25 West 45th street, New York. This sterling magazine is a representative in its field and deserves the support of all neurologists. All editorial and business communications should be addressed to the managing editor.

Miscellany.

ANTITOXIN COLLECTIVE INVESTIGATION (SECOND) AMERICAN PEDIATRIC SOCIETY.

To the Medical Profession:

The American Pediatric Society is encouraged to ask the coöperation of physicians in a further collective investigation. Laryngeal diphtheria is believed to furnish a crucial test for antitoxin. The present aim is to ascertain: (1) What percentage of cases of laryngeal diphtheria recover without operation under antitoxin treatment? (2) What percentage of operated cases recover?

The society asks the record of cases of diphtheria involving the larynx, whether operated or not, occurring in private practice in the United States and Canada treated with antitoxin. It is expected that the cases occurring this year will be treated with reliable preparations

of the serum, will be treated early and will be given efficient doses. The second report is designed to be a study of cases occurring between the closing of the first report, May 1, 1896, and the closing of the present collective investigation, April 1, 1897.

In order to secure data which shall make the tables complete, circulars containing blanks for ten cases have been printed and are now ready for distribution. It is desired that physicians shall fill out circulars, blanks, as cases occur, not trusting to memory, and shall urge their friends having similar cases to do the same. Circulars can be had by applying to the committee (address below). Several groups of cases in the first investigation arrived too late and were lost to the report. It is desired that circulars as soon as filled (ten cases) be returned to the committee. The collection of cases must close at the end of March, 1897.

For extra circulars (blanks) for returning circulars (filled) and for further information, address the chairman of the committee,

W. P. NORTHRUP, M. D.,

October, 1896.

57 East 79th street. New York, N. Y.

The action of the society upon the (first) report : (1) *Dosage*.—For a child over 2 years old, the dosage of antitoxin should be in all laryngeal cases with stenosis, and in all other severe cases, 1,500 to 2,000 units for the first injection, to be repeated in from eighteen to twenty-four hours if there is no improvement ; a third dose after a similar interval, if necessary. For severe cases in children under 2 years, and for mild cases over that age, the initial dose should be 1,000 units, to be repeated as above, if necessary ; a second dose is not usually required. The dosage should always be estimated in antitoxin units and not of the amount of serum.

(2) *Quality of antitoxin*.—The most concentrated strength of an absolutely reliable preparation.

(3) *Time of administration*.—Antitoxin should be administered as early as possible on a clinical diagnosis, not waiting for a bacteriological culture. However late the first observation is made, an injection should be given unless the progress of the case is favorable and satisfactory.

THE RUSH MONUMENT.—The Rush Monument committee has issued the following circular :

My Dear Doctor—The remarkable success of the relatively small body of homeopaths in the United States, in collecting \$75,000 for their monument to Hahnemann, to be erected in the City of Washington, ought to make every reputable regular physician in the country keenly

alive to the necessity for promptly subscribing to the fund for the long-delayed monument to Benjamin Rush.

The model for the monument to Hahnemann, which has been on exhibition in New York City, has attracted general admiration on account of its great beauty and artistic excellence, which will make it unrivaled as a work of this kind.

The regular medical profession, numbering over 100,000 more than the entire body of homeopaths, has thus far subscribed less than \$4,000 towards the projected monument to Dr. Rush, for which the navy department has already generously designated a commanding site in the park fronting the U. S. Naval Museum of Hygiene, where it will be one of the most conspicuous features of the national capitol.

Are the regular physicians of the United States willing that this illustrious signer of the Declaration of Independence and the distinguished medical hero of the Revolution shall be commemorated by an insignificant bust or a mediocre statue, in pitiable contrast with the splendid testimonial at their capitol city to a foreign theorist by a comparatively small body of his misguided followers? The crowds of visitors to Washington cannot fail to attach a disparaging significance to the spectacle of these two monuments, and we appeal to you to aid the committee in its endeavor to do justice to the memory of this great father of American medicine, pure and undefiled, by sending by return mail to either of the undersigned, as large a contribution as you may be able to make.

ALBERT L. GIHON, M. D.,

Chairman R. M. C., 8 West 127th Street, New York City.

GEORGE H. ROHÉ, M. D.,

Secretary and Treasurer R. M. C., Sykesville, Md.

W. MURRAY WEIDMAN, M. D.,

Chairman R. M. Committee for Pennsylvania, Reading, Pa.

HENRY D. HOLTON, M. D.,

Treasurer American Public Health Association, Brattleboro, Vt.

CHARLES MCINTIRE, M. D.,

Secretary-Treasurer American Academy of Medicine, Easton, Pa.

It is to be hoped that wealthy and philanthropic citizens will contribute to this object with promptitude. We should no longer hesitate to do honor to one of the distinguished fathers of the Republic, who was also a noted physician.

CAROID is the name of a new digestive agent that is manufactured by the Charles Roome Parmele Company, of New York. Prof. R. H. Chittenden, physiologic chemist at the Sheffield scientific school of Yale University, has published the results of his study of the digestive power of caroid as contrasted with papoid and

commercial papine. He gives a detailed report of each experiment relating to proteolytic action, six in all, and in relation to their starch digesting power. These are in every instance favorable to caroid, which, Prof. Chittenden says, shows throughout very much greater amyolytic power than the other preparations; also that a like superiority over proteid matter is exhibited. Further information regarding this new agent can be obtained of the manufacturers, 36 Platt street, New York.

THE effort being made by Mr. Geo. E. Livingstone, manager of the Press Publishing Co., in creating interest among local physicians on the delinquent debtor question is likely to culminate in the production of a very valuable book of local reference costing a mere trifle. It is about time that the physicians united in supporting something of this kind, and we endorse this scheme as being the simplest and best yet proposed and one almost absolutely void of any objectionable features.

PEROXIDE OF HYDROGEN, Hydrozone and Eye Balsam is the title of Prof. Marchand's book on the therapeutical uses of those preparations, the eleventh edition of which has lately appeared. It contains much useful information relating to these important chemical products, is a book of 216 pages and will be sent free to any physician who mentions this journal in connection with his request. Address Charles Marchand, 28 Prince street, New York.

EVERY subscriber in arrears received a statement last month, and we are happy to announce that a large number were not satisfied with paying the amount due, but enclosed sufficient to credit their accounts two or three years in advance. A five dollar bill in payment of a debt of but one or two dollars is a handsome way of expressing appreciation of any enterprise in times like these. You have our thanks.— *Ohio Medical Journal*, November, 1896.

THE Arlington Chemical Co., on its advertising page in this issue, announces the winners in its \$600 prize contest of last year. The personnel of the committee of award, with Dr. Frank P. Foster at its head, was an absolute guarantee of impartiality in the distribution of the prize money. The liberal spirit that has characterised this company is commendable.

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Original Communications.

AN ADDRESS ON MEDICAL EXPERTS AND EXPERT TESTIMONY.¹

BY FREDERICK SEFTON, M. D., Auburn, N. Y.

MAN'S mental activities for the last fifty years have been more absorbed in the pursuit of scientific knowledge than during the same period of any epoch touched by history. The world has been ripe for it, and the developments—one is tempted to say the creations—the result of this absorption have been phenomenal in their character and magnitude, and in their effects on the physical well-being of the individual as a unit, and on the complexion of society as a whole.

By means of them society practically has been reconstructed on new lines to its uttermost ramifications, and has become as distinct from the old order of things as was that order from aboriginal life.

To this onward rush and swirl of change, to this increase of complexity of life and living, our own profession, representative no longer of an art but a science, has in no small measure contributed. And thanks, if thanks be due, to universal education and the printing press, not alone the learned in other walks of life than ours, every one, the professor in his chair and the laborer in the ditch, has been awakened and claims some knowledge of the methods pursued, as well as of the results achieved.

As a corollary of this wonderful upgrowth of science, but perhaps chiefly because of the universal increase of knowledge of this upgrowth possessed by the masses, there has been created a new and vigorous bough on the already many-twiggged tree of medical science. Rather a by-path, known to but few and by them seldom trod, has been transformed into a broad highway along which

1. Delivered by invitation before the Central New York Medical Association at its annual meeting held at Rochester, October 20, 1896.

many travel, some to fame, some, with regret it is admitted, to infame, and all to the temporary betterment of their financial standing. I refer to medical experts and expert testimony.

With the rise in importance of this branch of our practice, with the increase in frequency of its employment as a means of avoiding juries, or of influencing the verdicts of juries and the decisions of judges whenever avoidance has been deemed inexpedient or become impossible, it has been demonstrated to a conviction to all thinking professional men, legal as well as medical, that the accustomed methods employed in the production of lay testimony, or testimony as to facts, is unsuited to the proper development and presentation of this special class of evidence and that a radical change is necessary.

Many lawyers and some physicians believe if a change is not soon forthcoming, the employment of the latter as experts in courts of law will be relegated into "innocuous desuetude" by reason of the disgust of two of the parties interested, and to the permanent moral and financial injury of the third.

After some time spent in interviews and in correspondence with physicians in different localities, I have found few medical men of experience and standing who have not on more than one occasion been irritated, often have been chagrined and at times humiliated by their experiences in this line of work. Complaining justly that they never are permitted to state their findings to a jury in a logical, comprehensive manner, in a manner that would enable them fully and intelligently to embody all the essential medical facts in the case to the satisfaction of mind of the average jurymen, but are bound down to "yes" and "no" replies to categorical questions, or forced in replying to utter trite commonplaces and well-worn stereotyped definitions, excellent sounding things, and well enough standing alone, yet completely failing to convey their real opinions, in fact any opinions, on the case immediately at issue. Or worse: forcing them by limiting the scope of the answers, to appear to give an opinion opposed to what they know to be the truth, or one which, while in no wise affecting their conclusions from a medical standpoint, to a lay jury seeming to be a retraction, even a contradiction, of testimony previously adduced by them. Or when an explanatory sentence would effectually clear a cloudy point they are forbidden to make it, at least at the time; and if further along in the case so much of it as opposing counsel have agreed will not contravene the laws of evidence is haled in,

it comes haltingly, from a physician's standpoint emasculated of all power to make fecund with understanding the mind of the normal jurymen.

The existence of these conditions should make every one of us anxious for reform, and a reform that shall place the physician, as a witness in court, in the dignified position merited by the profession he has the honor to represent before a court of justice ; that shall so restrict counsel in their dealings with experts as to make it impossible to frame an examination destined to parade a physician before court, jury and spectators as an interested, biased witness ; one prone to exaggerate, eager to suppress facts against and to magnify out of all due proportions facts favoring the interests of the side in whose employ he chances to be, and, necessity arising, willingly, even cheerfully, perjuring himself for the sake of the remuneration promised.

This is not a pretty picture, but a true one. One held up to public view at nearly every trial at which a medical expert figures as a witness. One over the contemplation of which court and all honorable counsel lament, pettifoggers chuckle, juries grow weary and apathetic and every physician worthy the name indignant and ashamed.

A system that makes possible the exhibition of such a picture, leads to the degradation of medical science in the interest of the legal profession. Less than a fortnight ago, in my own city, the Hon. Justice Werner, presiding in the case of Sunderlin against Hollister and Noble, was led to say, after the introduction of the testimony of the attending physician and the calling to the witness box of another physician to testify as an expert : " You get three or four medical witnesses on one side and three or four on the other, and they serve only to confuse the case. The physician who attended her, the litigant, said more than will all the rest."

It is not long ago that a judge at a trial in Washington openly charged that experts could be hired for \$100 or \$150 a day to swear to anything required. Another judge is quoted as saying that no expert could refrain from becoming a partisan. Which means, if it means anything, that medical men are daily violating their oaths and prostituting their knowledge at the behest of lawyers.

Abroad it would appear to be little better. A recent number of *London Nature* says :

The fact that scientific men, some of them even of high standing, can be procured to sustain the most contradictory views is, we have no

hesitation in saying, hurtful to the interests of science, and tends to degrade science in the opinion of the public.

The *London Times* thinks :

An expert reporting as a delegate of the Court would sometimes express himself very differently from one paid for his testimony.

Lawyers assert, and the assertion is plausible, that expert testimony procured at much pains and at great cost to the state and to the individual litigant, fails too often to subserve what should be its purpose—to so illumine disputed medical points with the light of true science that they shall shine forth clear and distinct to the mind's eye of the simplest—and rather throws an impenetrable veil of professional nomenclature over them, confusing judge, and so effectually befogging jury that in despair of ever comprehending, it casts out of the case all medical testimony and brings in a verdict based on the balance of the submitted evidence.

Yet that the bar complains might be thought slightly inconsistent. Certainly it becomes a trifle difficult to understand, when pausing to consider it is the application of rules and methods of which practically they themselves are the authors, that has begot the very evils they with us seemingly are anxious to eradicate.

Gentlemen—We have the diagnosis fairly complete ; we have ventured to suggest a prognosis if the disease remain unchecked ; what shall be the treatment ?

First—The medical expert himself: what shall be his qualifications ? To avoid the charge of presumption in discussing this point, it seemed advisable to quote other authority than mine, advancing my personal views only by inference to be drawn from the character of the matter quoted.

In France, in England or in Germany the courts would not recognise as an expert alienist a physician who had not at least several years of experience in special practice and study among the insane. Here, the ease with which anybody who wishes to call himself an expert may impose upon courts and juries is astonishing. His right to be considered so is never questioned. This is the reason that experts are so readily found who will swear that a sane man is a lunatic, that a notorious lunatic is in sound mind and all his delusions facts, that a man conducting his affairs perfectly has paresis and epilepsy and that another who clearly has paresis is capable of attending to his business as usual.

The *Medical News* of Philadelphia defines as its idea of an expert a man who :

Is above the level of the zeal of the partisan, the rage for publicity and the greed for lucre. . . . So we have two kinds of experts,

the first and greater of these stands for study, for observation, for candor, for science, for justice and for professional tradition. The second and lesser of these stands for rumor, for guesswork, for sensationalism, for newspaper notoriety and, above all, for self.

A daily New York newspaper says editorially :

The evils of pseudo-expertism must be indeed far-reaching when the organs of the medical profession are called upon to rebuke it. There is a prevailing lack of belief in experts nowadays among laymen, judges and juries. It is evident there must be a radical reform of some kind before the testimony of expert alienists in any given case can be accepted as always candid, honest and scientific. So long as any physician can pose as an expert if he thinks it profitable, so long as lawyers from either side may summon experts prejudiced in their favor by promise of payment for testimony in behalf of one side, just so long will expert opinions be received with incredulity, and perhaps with contempt and ridicule by the public and by the juries. The medical profession owes it to itself to see that the law regarding the manner of selecting experts is changed, and to repudiate all sham pseudo-experts.

A law might be framed compelling every physician presenting himself to the court as an expert, to prove he possesses special qualifications for the work. First, that he is a regularly graduated physician and in good standing. Second, that he has had at least five years' practical experience along the particular lines presented in the case about to be the subject of judicial investigation. We must admit, such a law, though a vast stride toward the goal sought, alone would fail to bring about the desired end, though ever so thoroughly and conscientiously enforced. The sore needs more drastic treatment. We needs must go farther and remove the chief cause; or, that being impracticable, we must deprive him of his power for evil. And as a hair of the dog is said to cure the bite, I have gone to him for the remedy, and in doing so have demonstrated the truth of the adage once more. For, in my opinion, were the remedies he proposes employed they would right this grievous wrong.

The principal part of what follows is based on interviews with judges of the courts and members of the bar :

First—A justice of the Supreme Court of the state and a number of lawyers have informed me it was the determination of many members of the bar to agree to employ but two physicians, one for each side of a case, to limit expenses and minimise chances for confusion. Such a measure is not remedial. It fails to take cognisance of, to our profession, the worst features. It fails to

secure to the physician adequate opportunities for a proper physical examination of the patient. It still permits counsel to throttle the physician on the witness stand as often as the exigencies of his side of the case may seem to demand.

Second—Lawyers propose to do away with expert testimony entirely and to rely on testimony as to facts, as was formerly done. This proposition, I am told, is especially enticing to those indolent and microcephalic disciples of Blackstone to whom the compilation of medical expert evidence is as the *pons asinorum* of their professional duties. In this advanced age such a reform is impossible, if advisable. The medical expert in one form or another has come to stay.

Third—It has been suggested that a law be enacted "requiring the appointment by the judge, of a commission of one to three experts to examine and report to him upon any medical question arising in the case." Such a change might be an improvement on existing methods, yet several objections at once suggest themselves to the mind. There would be danger that such an act would give rise to a set of court favorites composed of political doctors, so-called. If not, the difficulty of making a proper selection would be great; "for by what means would the judge be enabled to distinguish the true expert from the false?"

Fourth—A law might be passed compelling opposing counsel to meet and unite in choosing a single expert, as now they choose a referee. Such a law would have many advantages. Still, from the nature of the evidence demanded of an expert, called upon as he is not only for a statement of facts, but for conclusions based on those facts, he would be almost invariably at variance with one of the counsel, and be placed in as awkward and disagreeable a position as under the present methods. Besides, it might happen in important cases, it would be difficult, perhaps impossible, to secure a competent physician who would be willing to assume the responsibilities of the case alone. And there is wisdom, as well as safety to the doctor, in numbers.

Fifth—Each counsel might be compelled to present the names of three competent practitioners to the court, whose duty it should be to select one name from each side, and to add a third of his own choosing, the third not to be one of the original six; the three selected to constitute a commission, to whom every possible facility should be given for making a thorough scientific examination of the patient, even permitting them to summon and

examine witnesses if necessary ; counsel on both sides to have free access to the commission for purposes of consultation ; the commission to make a full report in writing to the court, and at the trial to testify in open court ; the examination and cross-examination by counsel to be limited in its scope to the specifications contained in the written report in the hands of the presiding judge.

I have been requested to say a word before closing anent the woman medical expert. She is all right. But, as to practical workings under a special enactment. A law of this state, as you all know, in effect says : If counsel demand a physical examination of a female patient, the subject of litigation, she is privileged to refuse to be examined by any but a physician of her own sex, and if she does refuse, and an examination is insisted upon, counsel are compelled to engage the services of a woman physician for the purpose.

The law was enacted with the sole purpose, as I understand it, of conserving the modesty of the litigant. Such an object is most commendable. The law is defective, however, and its shortcomings were so well exemplified in a recent case with which I chanced to be connected, I can do no better, perhaps, than briefly to refer to it. The case, one of a married woman, the mother of several grown-up children, was approaching trial for the second time. At the time of the first trial a physical examination necessitating the exposure of her whole person had been made by several medical men of her own choosing, and by a woman physician and two male physicians, chosen by counsel for the defense. Between the first and second trials sufficient time had elapsed to effect a change. Perhaps she could not

“ Bid the cheek be ready with a blush,
Modest as morning when she coldly eyes
The youthful Phœbus,”

But she had progressed ; heedless that Seneca had said : “ When modesty is once extinguished, it knows not a return,” and having permitted five medical men, chosen by her counsel, to make the second examination, she refused to unveil herself to the brutal scrutiny of defendants’ medical men, and compelled the defense to rest satisfied with an examination made by a woman physician.

It is proposed to have this law so amended that when a woman has practically waived her right to be examined by women physicians by submitting herself to examination by men physicians, chosen by herself or counsel, she shall be compelled to grant equal privileges to men physicians chosen by opposing counsel.

SCIATICA—A NEURITIS, RARELY A NEURALGIA— ILLUSTRATIVE CASES.¹

By E. B. ANGELL, M. D., Rochester, N. Y.

SCIATICA is a term so easily applied to any severe, recurring pain along the thigh, that rarely is sufficient examination made by the general practitioner to determine the exact nature of the disorder. With the mistaken idea that it is a neuralgia or rheumatism, objective signs are not sought for; the tale of the sufferer, with his undoubted expression of pain, and his stiff, limping gait being sufficient to establish a careless diagnosis and too frequently a fruitless treatment.

When, however, objective indications are searched for, it will be readily found that in the majority of cases the neuralgic pain, as such, proceeds from a true inflammation of the nerve, a neuritis, of which the pain is the most marked symptom. Neuralgia, in its present restricted sense, may be defined as a neurosis, characterised by spontaneous pain, due to functional disturbance or irritation of a nerve rather than to organic change in its tissues. The term neuralgia, then, should be restricted to those cases of nerve pain, idiopathic in character, or symptomatic of irritation from without, but not applied to pain due to organic changes of a nerve. In neuritis or inflammation of a nerve, we have definite objective signs of alteration in its structure, although pain may be the chief symptom, and decidedly of most importance to the victim. Nerve inflammation in general has certain pathognomonic symptoms, and if severe, results in organic changes of a motor and sensory character, readily recognised, very distinct from the functional disturbances due to neuralgia alone.

Any series of cases of sciatica, if carefully studied, will reveal a symptomatology which can better be explained as the result of a true neural inflammation, the appreciation of which will go far toward the establishment of satisfactory treatment.

In the early stage of the trouble, acute pain along the course of the nerve trunk, shooting, boring, burning in character, or a dull heavy ache, worse at night, is the essential symptom. So far it is a true neuralgia. When, however, the nerve is inflamed, if pressure is made along its course it will be found sensitive; decidedly so at certain points—the sciatic notch, the middle of the thigh, the popliteal space and at the ankle. Even though the ten-

1. Read before the Central New York Medical Association at its annual meeting, held at Rochester, October 20, 1896.

derness along the thigh is not marked, slight stretching of the nerve will readily elicit pain. This may be accomplished by seating the patient on a chair with the knee of the affected leg at a little more than a right angle. If now the finger is pressed into the popliteal space, so as to increase the tension of the nerve, a pain is produced along the course of the nerve in the back of the thigh, or above the sciatic notch if the seat of inflammation is within the pelvis. Perverted sensation, such as tingling, formication, numbness, burning and the like, may be felt in the area of its peripheral distribution, owing to pressure upon the nerve bundles within the swollen sheath. In severe cases, through destruction of the nerve filaments, there may be discovered irregular areas of anesthesia, flabby, atrophied muscles from motor disturbances, with alteration in electrical irritability which only in extreme cases amounts to a distinct reaction of degeneration. Vaso-motor changes are manifested rarely through herpetic eruption, exfoliation of the epidermis, or edema of the leg. Seldom does the inflammation extend upward to the plexus or cord, although permanent damage to these structures has resulted from sciatica.

How different the picture of a true neuralgia! While a neuralgia may give rise to vaso-motor disturbances, it is but temporary—as short-lived as the pain itself—and rarely more than a flushing of the blood-vessels of the corresponding area.

Except the nerve fibers be damaged, we do not find motor or sensory changes, or alteration of electrical reactions in our examination. But in a large proportion of these cases of so-called sciatica, careful investigation will develop the characteristic pain upon pressure or tension, some sensory alteration, muscular wasting and other signs indicative of irritation, pressure or destruction of nerve fibers. Essentially, sciatica is an inflammation of the nerve sheath, whence it may extend and affect the nerve framework, interstitial neuritis, or in the most severe cases attack the nerve fibers themselves, the parenchymatous type.

Furthermore, one curious fact is strongly corroborative of this distinction. In general, neuralgia attacks women more frequently than men, but in sciatica the reverse is true, the proportion being in the ratio of four males to one female.

I am well aware that some cases of sciatica are dependent upon causes without the nerve itself, such as rectal and other tumors, pelvic inflammation, bone disease and the like, while certain toxic states of the blood may give rise to neuralgic pain as well.

Indeed, in some cases a rectal examination is necessary to clear up an obscure cause. But neuralgia alone is a relatively rare form of the disease, and he who seeks a diagnosis from that standpoint will frequently meet with disappointment in his therapeutics.

The treatment of sciatica in general, then, corresponds to the therapeutics applicable to a neuritis. In the acute stage of the inflammation, absolute rest or immobility of the nerve is of prime importance. If the attack be mild, this may be secured by simple rest in bed, but in the severer forms—and it is the stubborn cases I am discussing—it is imperative to apply a splint to the leg, slightly flexed, in order to protect the irritated nerve. I know of no measure of more importance, yet rarely have I found it employed by the general practitioner.

Rest from pain may demand opiates, of which, injection of morphia is best. But, until compelled to that course, I much prefer the deep injection of cocaine in the neighborhood of the tender points, being careful to avoid wounding the nerve itself. This drug not only acts as a local analgesic, but antagonises the congested condition as well.

Mercury is generally regarded as serviceable in inflammation and may prove of advantage. It is to be administered in the form of blue pill or calomel. At least it will counteract in a measure the constipating effect of opiates, as well as promote elimination. In severe inflammatory cases, a hot, generous poultice along the posterior aspect of the thigh will give relief, though in the purely neuralgic type, cold will be more efficient.

Counter-irritation should be used early. The actual cautery, lightly applied along the course of the nerve, is of most value, while flying blisters or acupuncture may be tried. Galvanism is worse than useless in the acute stage, but will be found of real value when the disorder has become chronic, in which stage static electricity has proved itself of signal service. If muscular atrophy has resulted as a sequela, the faradic current, with slow interruptions, will do much toward restoring tone and strength to the wasted tissues. In those cases depending upon lithemia or toxic states of the blood, the free exhibition of salicylin, the salicylates and alkalies, has proved of decided value. Doubtless, they are the most serviceable drugs we have in this condition.

In stubborn chronic cases, nerve stretching may be of decided value, as it proved in a recent case of mine. It is rarely necessary to cut down upon the nerve itself, as sufficient force usually may

be brought to bear upon the nerve trunk, by manipulation of the thigh. With the patient well under ether, the leg extended is gradually but forcibly flexed upon the trunk by the surgeon, until any nerve adhesions are thoroughly loosened. This must not be done in any timid manner, or it will fail of accomplishing its purpose. Indeed, ligaments may be torn or muscular fibers ruptured, but the nerve must be subjected to sufficient force to insure success, it being borne in mind that the nerve will sustain a breaking strain of thirty or forty pounds.

I have limited my suggestions in therapeutics to the special measures applicable to the treatment of a neuritis, presupposing the needlessness of calling attention to the value of generous nourishment and the necessity of securing thorough elimination.

Permit me briefly, before closing, to call attention to three typical and obstinate cases, all of them referred to me by general practitioners after vain attempts to cure by the usual methods.

CASE I.—*Chronic Sciatic Neuritis*.—Mr. F. G., retired merchant, aged 60 years; family history negative; a personal history of lithemic dyspepsia for many years. The year previous, an attack of lumbago with sequent left sciatica. Treatment gave amelioration but not relief. At the time he came to me the disease had become chronic. He complained of burning sensation, as though hot water was being poured along the thigh; a tingling and numbness in the foot, and difficulty in straightening up from a bending posture. Pressure elicited soreness along the nerve trunk, especially marked at the sciatic notch, under the knee and at the ankle. The skin was dry and scaly. The muscles of the upper part of the thigh, especially the gluteal, were wasted, the circumference of the left thigh being two centimeters less than that of the right at the gluteal fold. The electrical reactions were altered, though no true reaction of degeneration was elicited. Sensation was dulled over area of distribution of the left sciatic nerve.

Distinctly the trouble was due to neuritis, and a treatment suitable to that condition in the chronic stage was instituted. Galvanism of the thigh, with faradic stimulation of the weakened muscles, was applied every other day. Salicylates and alkalies were administered, while the dyspeptic trouble was corrected. The result was full recovery in three weeks, except a slight lameness from the muscular weakness, which steadily lessened in time without further attention.

CASE II.—*Acute Form of Neuritis*.—Mr. M. A., *et.* 42, traveling salesman; family and personal history negative. Eight months previous to consulting me, a sharp attack of "rheumatism,"

so-called, across the back and in the abdomen, lasting two weeks. Then it affected the left sciatic nerve, and had been very severe ever since. Exposure the undoubted cause. Slight improvement had been followed by exacerbations of increasing severity. Present attack very distressing, with sharp, shooting, burning pain throughout course of nerve, greatly increased by movement or even by standing. Sensations of "pins and needles," with a burning pain in top of left foot. Foot was dusky and slightly swollen. Sensation to touch decidedly diminished over area of nerve distribution, somewhat increased to temperature. Painful points upon pressure along the nerve trunk, most marked in the popliteal space. Muscles of left leg less firm than those of right, but wasting only slight. Kneejerks exaggerated, decidedly so on left side.

Diagnosis, acute sciatic neuritis. Treatment, absolute rest in bed, leg on a long splint; cocaine injections, and morphia when pain uncontrolled by the former drug; light, frequent counter-irritation with the paquelin cautery over the line of nerve in thigh. Medication, a blue pill daily, with saline cathartics and salicylates freely. The acute pain was relieved, but there developed an obstinate chronic condition of dull ache throughout the leg and burning sensation in the calf and paresthesia in the foot, indicative of pressure upon the nerve filaments from a swollen sheath. In June last, under ether, the nerve was thoroughly stretched by Dr. Kempe, through manipulation. Adhesions were broken up, with incidental rupture of muscle fibers and, doubtless, some tearing of ligamentous tissue. The leg was again put in a splint, as the pain was naturally decidedly worse at first. But gradual improvement was established, until today, some nine months since the operation, he is fully recovered and actively engaged in his occupation.

CASE III.—*Neuralgic Type*.—Mr. Conrad S., *æt.* 49, a farmer, German by descent; family and personal history good. Three years before, an attack of so-called sciatica, which wore itself out uninfluenced by drugs. A second attack two years later. At the time I saw him he had suffered for ten weeks excruciating agony, with muscular cramps, hardly controlled by heavy doses of morphia. Pain worse at night, causing marked insomnia. There was always a dull, aching, frequently burning and shooting pains, with distinct periodic exacerbations, affecting chiefly, but not exclusively, the left sciatic area. There was considerable gastralgia at times. Frequent and painful cramps of the left leg muscles were present. Upon examination, I found no sensory impairment in the sciatic area; no sensitiveness of the nerve trunk upon pressure; no painful points along the nerve. The electrical reactions were normal, the muscles unimpaired, except through the general

wasting. Indeed, there was lacking any evidence of a neuritis. On the other hand, there was a decided manifestation of the lithemic diathesis, confirmed by urinary analysis.

Here, then, was a true neuralgia, dependent upon a toxic blood state, a marked contrast to the cases above recorded.

With appropriate anti-lithemic treatment the diathesis was remedied and the sciatic neuralgia speedily relieved, local treatment consisting solely of counter-irritation by the galvano-cautery upon two or three occasions.

In my remarks upon this oftentimes obstinate malady I have endeavored merely to determine the distinction that should be made between sciatic neuritis and the neuralgic form, by no means venturing to discuss the causes, course and management of the disease. If it shall lead to a closer study of a common ailment and a clearer comprehension of its management my purpose shall have been fully accomplished.

293 ALEXANDER STREET.

REFLEX EFFECTS OF INTRANASAL DISEASE IN THE PHARYNX AND MOUTH.¹

By HORACE CLARK, A. B., M. D., of Buffalo.

IF I MAY be pardoned for a moment's pleasantry, I would suggest that the subject of reflexes is closely allied to that of mistaken diagnosis. It is our common experience to receive a case every few days that has been from one to the other seeking relief. The right thing is finally done. The patient wonders why he need have had so long a siege, and the fortunate physician or surgeon is apt to plume himself unduly upon his skill. It is, therefore, not irrelevant to take this opportunity to raise the question as to a twentieth century possibility of having a general distributing bureau for people who are ailing. It might be called "a high court of diagnosis." Each person would be provided with a blank form for reports upon the examination of the various organs, made by physicians and surgeons of acknowledged highest skill. These reports would be subject to the revision of an advisory board and the patient would be sent at once to the practising specialist outside, into whose hands the case would be most likely finally to fall. If success failed, then the next most salient feature in the case would be considered and disposed of in the same way. Such

1. Read before the medical section, Buffalo Academy of Medicine, November 10, 1896.

a method might lead to a "trust" of physicians and surgeons. I do not know but this would be a good thing. It would save the public from quackery and supply it with many persons who might be of signal use. It would be a short way of getting at the "survival of the fittest." That is what is bound to happen to each and every one of us eventually, but very often not until after years of struggle, with loss of means, pride and ambition.

A few cases of my own are illustrations. In the first case I made a hypothetical diagnosis of dysphagia, occasioned reflexly from extreme nasal hyperemia, combined with or followed by the same condition in the pharynx. The throat was greatly relaxed. I am constrained to think that cure resulted from treatment of the pathological conditions in the parts indicated.

Mrs. W. had been unable to swallow solid food for a dozen years. She was 35 years old when I saw her, of small stature and sanguine temperament. There was nothing about her manner, nor her history, as told by herself or her friends, to indicate hysteria. She had no opinion herself as to why she could not swallow properly. Several practitioners in neighboring towns had told her that there was organic disease of the esophagus, which occasioned obstruction, and she was finally sent to Dr. Wilcox, of this city, to be operated on. I was asked to see the case in consultation and advised examination under chloroform. Neither of us could get any sort of an instrument to penetrate more than three or four inches of the esophagus. Anesthesia had not been completed to our satisfaction, and it was agreed that I should attempt a diagnosis under cocaine. Failing in this, the first proposition would be repeated and we would be prepared to do an esophagotomy.

I used metal bougies. The first one tried was about one-quarter the size of an ordinary olive. Its passage was firmly resisted at a depth of about three inches. I allowed it to remain, however, and upon gentle urging it soon became tightly grasped. In the course of half an hour it had passed through to the stomach and back again, meeting the same obstruction at the same place on withdrawal and overcoming it in the same way. The following day the same instrument passed more readily and without cocaine. A few days later I cocaineised the constricted part with a sound and catheter, and passed the next larger bougie. Repetition of this procedure from time to time resulted in the ready admission and passage of the largest bougie. Meantime, I discovered that irritation with the probe of certain portions of the inferior turbinated bodies, notably the left one, gave rise to gagging efforts when the mouth was held wide open, which were not present upon irritation of other parts. This irritable tissue was destroyed with the galvanocautery, which was followed, in due time, by cessation of the gagging

upon probing the parts operated. Involuntary swallowing was greatly reduced after the removal of degenerated tonsils with the cautery loop. The remainder of the treatment consisted of the daily application of the faradic current, alternately, to the fauces and esophagus, with the exhibition of strychnia and a laxative. Maltine with coca wine was added to a carefully selected dietary.

The point in the case is that the patient gradually came to a diet of solid food, which was taken without any difficulty whatever, and the result has continued uninterruptedly for nearly a year. Moreover, she has had but one cold in the head during that time, whereas previously she had been a sufferer in this way.

The second case is also one of dysphagia, but widely different in detail.

The patient is a young man, 19 years old, of good family and with all the surroundings of luxury. He is well built and strong, though undersized. I do not know when I have met a boy who understands himself as well, or has more of an executive, deliberate manner. He gave me his entire confidence, and has never made the slightest contradiction upon repeated cross-examination. He was sent to me for treatment of nasal catarrh. The dysphagia was looked upon as a spasmodic affection, due, probably, to masturbation. No positive evidence to support this etiology was possessed, and I was asked to try to obtain it. To my mind the case did not present such a picture, nevertheless most careful inquiry and examination was made to that end. The only other general cause for spasmodic dysphagia which could be drawn from the patient's history, was pin worms. These he has had, from time to time, since childhood. On the supposition that there might be other varieties of intestinal parasites, full doses of santonine were given, with careful directions to examine the dejections. Solid food is never regurgitated, nor is there often regurgitation of liquids. A bolus of food is passed on into the esophagus, but sticks, entire or in part, a little beyond the entrance. Difficulty in swallowing began as far back as the patient can remember. There has never been a remission or exacerbation, but the trouble has very gradually increased. At ten years of age he had so-called typho-malarial fever. He was very ill, and convalescence was protracted. When he was sixteen years old he struck on his head when diving. For a long time thereafter he could not take a complete inspiration. He states that his diaphragm seemed to be fixed at a certain place. This condition still pertains, but has been largely overcome by expansion of breathing surface from growth, and because the apices of the lungs have been put to greater use. The history relates, also, to tardy beginning and ending of micturition. The bowels are sluggish, although there is no constipation. Appetite and digestion are good, and there has been a gain in weight of ten pounds

within the past two months. The eye on the side corresponding with the paretic side of the throat, presently to be mentioned, is abnormal in some way as to sight, and its conjunctiva inflames more readily than that of the other eye. The tuning-fork applied to the top of the head is heard more distinctly on the paretic side. The pulse has always been rapid, because of this last part of the history, and to make a test case, as far as possible, as to the causative relationship between nasal disease and dysphagia, Dr. Krauss was asked to make a careful examination. He reported an etiology of functional nervous origin entirely. There is no reason why a multiplicity of complications might not be coincident with the dysphagia, yet independent of it. I question if general neurosis is responsible for the dysphagia in this instance, preferring a diagnosis of local myopathic paresis. This proposition is already sufficiently sustained, by radical improvement, subjectively and objectively, to warrant a report of the case. The end result cannot now be given, because treatment has not been concluded.

Local examination showed nothing of note in the anterior nares on either side. The posterior ends of both inferior turbinated bodies appeared as greyish-white masses, of irregular shape, compressible and nearly smooth. The left nostril was practically occluded by the enlargement on that side, which hung slightly backwards into the naso-pharynx. Both enlargements were bathed in an abundant, stringy mucus. The usual lump of greenish mucus and detritus was loosely **adherent** to the roof of the pharynx. The throat presented the picture of a post-diphtheritic paralysis. Muscular action related almost entirely to the right side, constrictors and elevators as well. The whole part was weak, thick and flabby, and pretty liberally covered with a thick, pasty secretion. Further down there was a considerable collection of mucus, at the base of the epiglottis, and in the pyriform sinuses on either side. This explained, in part, the patient's statement that he is always obliged to clear his throat before speaking. The larynx was quite normal in appearance and movement. At the conclusion of the examination, thus far, the patient voluntarily stated that it seemed as if he swallowed mostly with the right side. This was the stronger. Also, that particles of food, such as crumbs, frequently lodged behind his nose. The latter symptom is rarely absent in cases of faucial paresis, of whatever origin.

Unlike the first case, the half-dozen graduated bougies passed through the esophagus without hindrance, and with surprisingly little annoyance to the patient. They were used but twice. On the second occasion, the patient had purposely refrained from drinking to force onward a portion of food which had stuck at the usual place, which is his habit. This was done of his own accord. The bougie did not free the lodgment, but it was disposed of by

subsequent drinking. The only explanation I could offer of this was habit, or on the principle of a cinder in the eye: it seems to be there long after its removal. If a diverticulum is suggested, I will give my objection to that. The right side of the throat was fairly sensitive to the faradic current. There was no sensation whatever on the left side until several times the strength of current was turned on; nor did the constrictor muscles respond until there was sensory disturbance. There was marked difference in the action of either half of the levator palati, and about the same degree of difference as to sensation and slight movement of the membrane applied to the wall of the pharynx. No inequality was noticed in the tongue, cheeks or roof of the mouth. Articulation was not perfect on certain words, and the lips were carefully tested, but without result. The patient whistled with the right side. He claimed to note a difference in the facial nerve, but I doubt this. An electrode introduced into the esophagus, to the length of three or four inches, was not noticed at all when the current was applied to the left side, whereas the patient nearly rose out of the chair when the opposite side was touched.

Before operating the parts within the nose previously mentioned, faradisation was repeated a few times as described and in the usual way upon the neck. I preferred, however, to postpone the systematic use of the current until the supposed sources of irritation had been removed and the parts readjusted in some measure. There was, nevertheless, rapid sensory and motor improvement on the paretic side. That this was not accompanied by a corresponding change in swallowing was a paradox to the patient. The explanation offered was, that a member of the body, as an arm, might readily be made to respond to any desired movement, even after a long period of rest; its movement might be quite as perfect as that of the well arm, yet if a weight were to be lifted a great difference in *muscular* capacity at once would be apparent.

It is significant that a much less amount of cocaine than is generally required prepared the throat and naso-pharynx for operation. With the aluminum palate retractor in place (which I show because you may not all be familiar with it; which, because of its extreme lightness and flexibility, has reduced all naso-pharyngeal operating to exact manipulative technique), the tongue depressor being held by the patient, and the part illuminated with the rhinoscope, the enlarged posterior end of the inferior turbinated body on the right side was at once removed with the cold snare. Rest-

ing for a moment, the patient said he had a sensation as of a big hole somewhere behind his nose. On the other side the part was thoroughly destroyed with the galvano-cautery. The latter procedure for ablation of polypoid thickening is greatly to be preferred when practicable. A few patches of enlarged follicles on the wall of the pharynx were destroyed with the cautery point, as well as certain areas of thickened membrane, notably on the pillars of the fauces. Their further nutrition was cut off by interrupting the blood-vessels going to them. This last procedure is mainly directed toward the improvement of the condition known as "relaxed throat," present in this case. It is responsible, in whole or in part, for a long list of annoying symptoms, besides being a contributing factor in dysphagia, especially in singers and public speakers. I have never had opportunity to demonstrate my supposition that relaxation is thus helped by the formation of small areas or lines of scar tissue. If scar tissue does form, why would not it assist in rendering the part more tense? If its presence were only temporary, why would not it act in the same way while the part was adjusting itself to proper action, after the removal of some obstacle, such as intranasal obstruction? It is because of this teaching the part how to work properly when it can, after long-continued and forced misuse, that lessons in the use of the voice are so valuable and, in many cases, an indispensable adjunct to operative procedure.

The remainder of the treatment consisted at first in the daily application of the faradic current, within and without, alternating with painting certain thickened parts, which did not indicate the use of the cautery, with a solution of iodine and iodide of potash in glycerine; also the vaporisation of the upper air tract, through the nose, with that solution, combined with a solution of antiseptic substances in oil, by means of a multiple comminator. No medicine internally has been given thus far, and direction as to hygiene was found to be unnecessary.

The points in this case are, that the patient has been all along subjected to the effect of wrong impressions, which has undoubtedly affected his character in many ways, holding him back when his inclination was to go ahead. Further, if there is such a thing as reflex disturbance dependent upon intranasal irritation, this is such a case, and as such should have been recognised long ago. Thus damage would have been prevented, which at this late day may be remedied but is very probably not susceptible of complete cure.

After the many disappointing results we have had in the matter of reflex effect from intranasal disease, especially in hay-fever, often in cases of brilliant promise, the greatest degree of scepticism is warranted. It is, however, impossible to yield the relationship altogether. A case passed through my hands last summer, in which the whole nervous system seemed to explode within the nose, thence to distribute itself in fragments to functional disorder of various parts of the body. One or both nostrils would close suddenly and open again as suddenly after a longer or shorter time, or they would gradually become patent. Material which could swell was removed, as well as certain bony protuberances, and a deviation of the septum was straightened. The result was a delight to all concerned for about three months. An acute cold was then followed by a return of nearly the same old condition. The middle turbinated bodies were this time found to be the offending parts, alternately swelling into the space previously made or retreating from it, according as the patient was excited or calm, occupied in some absorbing way or unoccupied. Certain evidence is present in this case, in that the patient acquired the morphine habit for a short time, a year or so, previous to operation; the habit was persisted in because she had no trouble with nasal obstruction pending the use of the drug. When the nose is closed, that person is utterly miserable. So long as a case of that nature exists; so long as an epileptiform seizure can be produced by probing a certain area within the nose, an illustration of which occurred in my own practice not long since; so long as cough, persisting for a year or more, and resisting all internal remedy, can be stopped almost at once by the removal of half-a-dozen large polypi from one nostril, the other being clear, which was also a recent most gratifying result; so long as such an apparently simple matter as an erosion upon the septum can give rise to a long list of grievances against nature, represented, when fortunately brought to heal, by restoration to general health and the continuance of a college course, of which I can produce a witness of nearly a year's standing; so long, in fact, as every vital process depends essentially upon proper breathing, which can be so readily interfered with by a multitude of mistakes in nasal anatomy, or acquisitions thereto, it would seem only fair to give the rhinologist a chance long before he usually gets it. Granted that he may do incalculable harm. The same is true of specialists in other departments. And it is a question if the harm done by the rhinologist is not more often

apparent than real. The slightest thing wrong with the nose or throat is noticed and located at once. A great deal may be the matter with the uterus, for example, both before and subsequent to operation, hence with the entire body, yet the patient does not relate her malady especially to that organ. The same may be said of the stomach and bowels, and their many attempted curative measures, if so be the patient has a little rheumatism to absorb his attention.

There are several other reflex disturbances in the pharynx and mouth accredited to intranasal disease, such as hyperesthesia, paresthesia or imaginary foreign body, pain in the throat, paresis of the palate, cases of which are probably cases of chorea. Violent and distressing hicough has been reported. Salivation, herpes and toothache have been described and noted as cured by leading foreign and American authorities. I have had cases under nearly all these headings, some of which I have been content to accept as proved. Next to hyperesthesia, dysphagia is the commonest reflex disturbance from intranasal disease which can be benefited or cured. Clinical proof is what is wanted, and a multitude of cases is often confusing and damaging and of less value than two or three which are positively convincing. Clinical fact should, however, be in agreement with theory. I shall, therefore, conclude this sketch with an attempt to show, theoretically, how intranasal disease and dysphagia can be connected. If that can be done, it stands to reason that other reflex disturbances, supposedly from a similar cause, can be equally well explained.

Let me remind you of the "reflex arc." It consists in (1) an afferent sensory nerve, (2) an efferent motor nerve, and (3) a center of nerve cells or fibers in the spinal cord connecting the two. A sensory impulse can find its expression in a given area as a vascular change, due to its transmission as a vaso-motor impulse interfering with the nerve control of the arteries in that area. For instance, a local morbid condition is followed by an impression to the nerve center of its existence, and this, in turn, appears as transmitted force to another part, remote or near, resulting in some pathological condition or other subjective evidence. The medulla controls the nerve supply of the blood-vessels and is the coördinating center of all reflexes which have to do with the support of vital functions. These functions can be disturbed by irritation of any sensory nerve in the body. The sphenopalatine ganglion has been the point of experimental attack to explain reflex disturbances

from intranasal disease. The trigeminus nerve has its origin in this ganglion, and it is this nerve which controls the secretion and probably the nutrition of the nose. We have but to recollect the extent of distribution of this nerve, its anastomoses and ganglionic connections; also that it regulates the most intricate and delicately sensitive portion of the whole respiratory tract, to appreciate what abundant opportunity is offered within the nose for reflex disturbances. In the matter of reflex dysphagia from nasal disease, the course of transmission appears to be by way of the sensory root of the trigeminus in its connection at that point with the Gasserian ganglion. The next link is through the carotid plexus of the superior cervical ganglion of the sympathetic and the pneumogastric, whose fibers are distributed to the pharynx and esophagus. The naso-pharynx and pharynx, while partaking of the general structural character of the upper respiratory tract, have to do more especially with deglutition. There are the tonsils on either side out of the way of injury, and the glands in the vault of the pharynx, similarly protected, supposedly supplying a good deal of secretion as a factor in lubricating a bolus of food. When the action of these glands is interfered with, deglutition is likewise affected. Nothing disturbs their action to any such extent as impaired or lost innervation of the constrictor muscles of the pharynx. These muscles have their nerve supply from the pharyngeal plexus, which is formed by the largest, or carotid branch of the ninth pair, uniting with the pharyngeal branch of the sympathetic. Without considering details of mechanism, the chain of connection from intranasal irritation to dysphagia is, therefore, complete.

The next question relates to the most frequent cause of starting of a nasal reflex. In the majority of cases this is due emphatically to turgescence of the inferior turbinated bodies. The vascular tissue of which they are principally composed, notably veins or venous sinuses, is erectile. When this becomes engorged with blood, tension of the mucous membrane ensues, which represents a source of irritation to the sensory nerve filaments, and a reflex train is set in motion. Any part within the nose which is capable of receiving an undue flux of blood, will act in the same way. An instance of this is found in the soft oval swellings so frequently seen at the lower and extreme posterior portion of the septum. I recently saw a case markedly illustrative of the last condition. Pressure with the probe caused severe pain across the temple, along

the side of the head and downward into the jaw. Whenever the parts were swollen, headache was invariably present. As soon as the effect of the cautery had subsided, the pain disappeared and has not returned. A hyperemic rather than a hypertrophic condition is, therefore, more favorable as a starting point. For this reason polypoid thickening is an exceedingly fertile soil for the development of reflexes, and this is the nature of the enlargements noted in the second case. Extreme congestion represents a vaso-motor paresis, and is most frequently found in persons of a neurotic habit. Hypertrophic changes, on the other hand, are often manifestations of purely local disease. It is, however, often not the initial lesion which causes the disturbance, but the paretic condition to which it gives rise. Constant severe vascular disturbance sometimes produces a hyperesthetic condition of the nerve centers, and reflex excitability is thereby greatly heightened. This explains, probably, the minimum amount of benefit from treatment of neglected cases of long standing—in which category my second case will undoubtedly fall.

Engorgement is not by any means necessary for reflex action. I have a case at present in which reflex headache was disposed of by the fortunate healing of an erosion upon the septum anteriorly at a vulnerable spot. I cannot agree, however, that pure atrophic nasal disease is causative of reflex excitation; nor can I endorse Gottstein's opinion that vaso-motor neurosis in these cases is due to the neurosis itself, and that the result of cauterisation in disposing of the reflex is a matter of luck or is due to revulsive action.

Finally, a few words upon dysphagia, *per se*, and as to differential diagnosis. It is caused by disease or injury of the fauces or esophagus, or it is reflex. In addition to many local causes listed in the text-books one is often omitted—namely, enlarged glands at the base of the tongue. I would note also that auscultation of the esophagus frequently gives valuable diagnostic information and is not generally practised.

Differential diagnosis relates to (1) spasm, (2) chronic esophagitis, (3) paresis, (4) malignant or specific disease. The principal points to note are these: In spasm the sound or bougie passes with great difficulty, whereas in the other conditions (unless there is positive stenosis) these instruments pass more readily than in health, even without a tendency to gagging. Dysphagia is present in all, but it is intermittent and of variable intensity in spasm,

constant and without special variation in other diseases. Regurgitation is a symptom common to all. It is, however, much more frequent in spasm. In this condition also solids as well as liquids are expelled, usually immediately and forcibly ; in organic disease liquids or fluids are more readily swallowed than solids, and the former are more often expelled. Other diagnostic points of value are that in spasm the symptoms develop suddenly, pain is rarely present, and there is never a frothy admixture in regurgitated material. In spasm the patient is rarely emaciated though weak, nor is he especially depressed.

It is not necessary to consider the points of difference between various forms of organic disease further than to note that paresis of a myopathic nature is not infrequently a sequela of acute febrile disease, as well as from disturbed innervation and blood supply in consequence of intranasal disease. Hysteria rarely leads to paresis of the pharyngo-esophageal musculature, but is manifested as a spasm. In local paresis development of dysphagia is very gradual. Morrell Mackenzie refers to many cases in his practice which lasted from ten to twenty years. For emphasis I refer again, and separately, to auscultation of the esophagus. In paresis a mumbled, gurgling sound is heard, whereas in spasm the sound is sharp and clicking, heard now in one place, now in another.

Prognosis in simple local paresis, as from muscular weakness, is always favorable. Improvement rarely fails and cure results in many cases.

When artificial feeding is necessary and can be given by the mouth, a bottle with a tube and bulb attachment, as suggested by Bryson Delavan, of New York, will be found to be an excellent device.

For internal medication as against neurotic diathesis, a combination of the extract of belladonna with the oxide of zinc, in pill or tablet, in the proportion of a quarter of a grain of the former to half a grain of the latter, three or four times daily, has given better results, in my experience, than strychnia, nux vomica or the various proprietary nerve tonics.

I would also refer again to hyperesthesia of the pharynx as the most common of the reflex disturbances of intranasal disease, and ask a trial of a spray of resorcin to assist in controlling that condition.

A PLEA FOR THE GENERAL USE OF MEASURES TO PREVENT OPHTHALMIA NEONATORUM.

BY ALVIN A. HUBBELL, M. D., Ph. D., Buffalo, N. Y.,

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THE importance of a remedy is measured by the seriousness of the disease which it prevents or cures; and a preventive remedy is more valuable than a curative one in proportion to the amount of injury and fatality saved. If vaccination prevents individuals from having small-pox, or from having it in a severe or fatal form, while with all known remedies applied to the cure of the unmodified disease a large proportion die, the importance of the prevention immeasurably outweighs that of the cure. If, by the adoption of efficient sanitary measures, Buffalo's death-rate is reduced one-half, and that city becomes perhaps the healthiest of its size in the world, the importance of the measures which prevent disease ranks high above the best remedies that can be used to cure it.

If the sad results of purulent conjunctivitis of infants can be averted manyfold by preventive treatment, in so much is the importance, here, of prophylaxis magnified over curative treatment.

I have set myself the task of showing that such is the case, and I invite the profession to reconsider the attitude which should be taken toward this subject.

In the first place, purulent conjunctivitis of infants, or ophthalmia neonatorum, is a most serious disease of the eyes. Statistics show that of those who have the disease and have not been properly treated, from 10 to 15 per cent. go blind in both eyes; of those in whom the treatment has been in part what it should be, from 4 to 8 per cent.; and of those with the most skilful treatment, from 1 to 4 per cent. As a large proportion having the disease are, without doubt, indifferently treated, it is probable that in every 100 such cases at least five lose their vision in both eyes. A much larger proportion become blind in one eye.

In the second place, it is a frequent disease. Both old and recent statistics give ample proof of this. From them we learn that in institutions for the blind there are, according to Magnus, in Europe, 24 per cent. blind from this disease; in Switzerland, 26 per cent.; in Germany, 26 per cent.; in Hungary, 21 per cent. Reinhard estimates this class of inmates in the asylums of Ger-

1. Read before the New York State Medical Association, October 14, 1896.

many, Austria and Holland at 40 per cent., while Horner places it for Germany and Austria at 33 per cent., both estimates being much larger than those of Magnus.

In the asylums of cities the following percentages have been found: Copenhagen (Haussman), 8; Vienna (Haussman), 20; Berlin (Haussman), 20; Berlin, (Katz, at another time,) 41; Paris (in 208 young persons blind), 45; Paris (Claisse), 46; Breslau (Magnus), 34; Sheffield (Snell), 38; New York, Batavia, Philadelphia, Chicago, (Andrews, Howe, Harlan, Prince,) about 20. In the eye hospitals and dispensaries among those blind from this cause there were in nine German hospitals (Magnus), 10.8; Breslau (Cohen), 11.1; Paris (Dumas), 69.3; Paris (Bourjot St. Hilaire), 27.

Among the whole blind population of Brunswick, Fuchs has estimated that 28 per cent. were blind from this disease, and of that of Nassau, 13 per cent. Bell (*British Medical Journal*, March 3, 1888,) claimed that there were 72 per cent. among those of England. The census of the United States (May) gives a proportion of 20 per cent.

Approaching this question as to frequency from another point of view, we find important testimony when considered in its relation to the whole number of births in a city or country. After a careful inquiry, Widmark (*Rev. d'Ophtalmologie*; and *Sajous' Annual*, 1889, Section B, page 167,) concluded that three out of every 1,000 children born in Sweden had ophthalmia neonatorum. Skrebitzky (*St. Petersburg Med. Woch.*, June 8, 1887,) estimated that among the poor classes of St. Petersburg 8 to 12 per cent. of the new-born were afflicted with this disease. Calculating that for every one blind from this disease about fifteen to twenty others have had it and been subjected to the frightful risks of blindness, but who have fortunately recovered, we may reasonably conclude that in the United States from one to two out of every 1,000 children have been victims of this disease. My own inquiry among physicians of Buffalo leads me to believe that in every 1,000 infants born in that city at least five have this disease. In the practice of some physicians of my acquaintance the proportion is greater than this, while in others it is less. In European countries the statistics show that the proportion is greater than in the United States.

We have another index of the frequency of ophthalmia in the reports of the various clinics. Mules (Manchester, England.)

reports a total of 97,237 eye-cases attending the Manchester Eye Hospital from 1876 to 1884, inclusive, of which 3,319, or over 3 per cent., were ophthalmia neonatorum. Hirschberg reports, in 21,440 cases, 314, or nearly 1.5 per cent.; Schoeler, in 10,000 cases, 156, or over 1.5 per cent.; Horner, in 10,000 cases, 161, or 1.6 per cent. In the eye hospitals of the United States the proportion varies, probably, from 0.4 to 1 per cent.

The maternity hospitals furnish additional information, although it must be admitted that the frequency is much greater here than in private practice. But, without special prophylaxis, it has been found that from 1 to 5 per cent., and sometimes as high as 10 percent., of the infants born in these institutions have ophthalmia.

These studies of statistics force us to conclude that ophthalmia neonatorum is not only a most severe disease and dangerous to sight, but that it is a common affection. Its consequences are so grave, both to the individual and public economics, that its proper treatment has been emphasised in such a manner that it becomes by law a misdemeanor, punishable by severe penalty, in this and other states, for the nurse or midwife not to report the earliest symptoms to a physician. This great stress is laid upon its cure, and yet, under the most skilful treatment, even early begun, many eyes go blind. The lessening of its frequency is none the less desirable, and the importance of preventive measures is none the less apparent, but such measures have not until recently been developed and made efficient and available. The time has, however, now arrived when the greater emphasis should be placed where it always belongs—namely, on the prevention, rather than on the cure.

The prevention of ophthalmia neonatorum is not altogether a recent study. Recognising the fact that the disease is caused by infection from the secretions of the parturient canal, vaginal douches previous to and during labor have been recommended and practised by various physicians for many years. This practice is commendable, is measurably effectual, but it has never become common. With the development of the germ theory of disease and the discovery of germicides came a new interest in this affection. The gonococcus of Neiser, of Breslau, described by him in 1879, (*Centralblatt für Med. Wiss.*, No. 28,) became an objective entity and cause in gonorrhea, and gonorrhea was thought to be the prime source of ophthalmia neonatorum. Here, then, was something to be either eliminated or killed, and with one or both

of these objects in view a scientific prophylaxis has been attempted and put into practice. Vaginal douches and cleansing the eyes were again resorted to with increased zeal, water, both with and without antiseptics, being used. But it was not till 1883 that Credé, of Leipsic, after experimenting with different applications and substances and solutions of different strengths, brought to the attention of the profession a specifically germicidal method of prophylaxis. He supported his claims for the method by an experience which has since been verified by all who have practised it with the same care. So potent has been this practice that wherever it has been used properly, the occurrence of ophthalmia neonatorum has been reduced from the percentages prevailing in institutions, such as I have already named, to 1 or 2 per cent., and in some institutions almost to zero. I refer to institutions, because it is here that the merits of the method can best be tested and comparisons best made.

Credé's method is as follows: The child is put into the bath immediately after ligating the umbilic cord, the eyes are carefully cleansed with a linen cloth, or better still, absorbent cotton, and then the eyelids are slightly separated and a single drop of a 2 per cent. (10-gr.) solution of nitrate of silver is instilled between them. In order to make secure the instillation of a *single drop* and to avoid the irritation which follows the application of a larger quantity, Credé recommended the use of a glass rod 15 centimeters (6 inches) long and 3 millimeters ($\frac{1}{8}$ inch) in diameter, with smooth, rounded ends, from which to let fall upon the cornea a single drop of the solution (Carl F. S. Credé, *Die Verhütung der Augenzündung der Neugeborenen*, *Archiv. für Gynäkologie*, Vol. XXI, 1883). He condemned drop-bottles as a means of applying the silver and did not evert the lids. He at first washed the eyes before the instillation with a 2 to 200 solution of salicylic acid and afterward applied compresses over the eyes wet with the same. But this was soon discarded, as well as the vaginal douches during labor. He at last used nothing but plain water with which to wash the eyes before the instillation. The efficiency of Credé's method is more explicitly shown by the following statistics:

In Credé's own institution the percentage in 1880 to 1883 (including 1,160 births with only 1 or 2 cases) fell from 10.8 to 0.1 to 0.2. In 1886 he reported 1,211 births with 3 slightly affected, or 0.25 per cent.

In the Greifswald gynecological clinic the cases of the disease

were reduced from a per cent. varying from 9 to 22.4 to 1.8 ; in the Berlin Charité, from 9 to 0.9 ; in Königstein's, to 0.7 ; in Krunkenberg's, to 0.14 ; in Felsenreich's, from 4.3 to 1.5 ; in A. Russell Simpson's, from 11.76 to 5 ; in Bayer's, from 12.3 to 0 (Fuch's, On blindness).

Giales (*New Orleans Medical and Surgical Journal*, 1886,) stated that in the foundling hospital of Paris some twenty years ago the percentage sometimes reached as high as 80 or 90 ; but today, under Credé's method, it was not far from zero.

Levan (*Sajous' Annual*, 1889, B, page 66,) used vaginal injections of 1 to 2,000 bichloride of mercury as a prophylaxis in 30 cases, and 5 of the infants became affected with mild ophthalmia. In 100 cases no injections were used, but Credé's method was followed, and not a single case of the disease occurred. In one other case in which the silver solution instillation was inadvertently omitted in one eye, that eye became affected, while the one receiving the instillation escaped.

Steinbüchel (*Wiener Klin. Woch.*, Vienna, 1891,) says that during a period of two years preceding 1891, 5,994 children were born in Vienna hospitals, and the eyes became affected in only 1.75 per cent., while before the Credé method it was much higher.

Dr. J. Lwow-Kasan (*Deutsche Med. Zeit.*, 1889,) reported in 1889 914 infants treated by Credé's method without a single case of the disease.

Dr. May (*Medical Record*, 1895,) says that in 4,000 births at the Sloane Maternity in New York during six years, by Credé's method, no ophthalmia had occurred. At the Nursery and Child's hospital, New York, there had been 563 births during 1891 to 1894 with but one case. At the New York Maternity hospital, Blackwell's Island, the disease was "very uncommon" among 300 births annually.

Dr. Garrigues (*American Journal of Medical Sciences*, 1884, Vol. LXXXVIII., page 444,) during his service in the New York Maternity hospital in 1882 to 1884, followed Credé's practice in 351 infants and not one was affected with ophthalmia. One other case was delivered in the absence of the house surgeon and the silver was neglected, and this child had the disease and lost both eyes in spite of special treatment. In Dr. Mundé's service in 1885 in the same institution, 83 infants received Credé's treatment and not one had ophthalmia. At a previous period, according to the house surgeon, Dr. Pierson, "it had been no uncommon occurrence to

have half a dozen of these cases on hand in a service of 35 confinements a month."

Without deducing further experience this seems sufficient to justify the method of Credé as a preventive to ophthalmia neonatorum. But other methods have been brought forward, and although not so extensively corroborated, make claims which merit consideration. For example, Dr. Pinard, of Paris, in 1888 introduced the practice of squeezing the juice from a citron and dropping it directly into the eyes of every child as soon as born, with encouraging results. At the Baudelocque clinic in 1891, out of 1,615 births there were 13 cases affected, or less than 1 per cent. (*Panas Maladies des Yeux*, T. II., page 215.) In 1890 he had used these instillations in 852 infants, of whom 14, or 1.64 per cent., had ophthalmia. Recently Pinard has substituted for the citron juice a solution, 5 to 100, of citric acid.

Dr. E. Valude, of Paris, in 1891, brought forward iodoform insufflations into the eyes of the new-born as a prophylactic. (*Annales d'Oculistique*, T. 106, 1891, page 96.) His method is as follows: Immediately after birth and before tying the cord, the lids are gently dried with cotton impregnated or not with an antiseptic solution, and all greasy matter is removed from the lashes and edges of the lids, and then the lids are slightly separated and a certain quantity of finely powdered iodoform insufflated or dusted into the eyes. It is not necessary to repeat the insufflation. He first began this practice in the Hospital Saint-Louis, in 1890, in the service of Dr. Bar. From December 1, 1890, to April 1, 1891, 264 infants were thus disinfected, of which 13, or nearly 5 per cent., had ophthalmia. Credé's method had been previously used in the same place and under the same conditions with a result of 7 to 8 per cent. In Dr. Tarnier's service the use of the iodoform insufflations gave the same comparative results. In 248 infants there were 5 cases of the disease, or 2 per cent., while previously in 218 treated by Credé's method 13, or nearly 6 per cent., became affected.

Madame Henry, midwife-in-chief of the Maternity of Paris, washed the infant's eyes at birth, and twice a day for a time afterward, with 1 to 1,000 solution of bichloride of mercury, and in a long series of deliveries did not get a single case of the disease. (Valude, *les Ophtalmies du Nouveau-ne*, Paris, 1895, page 29.)

With carbolised water, Königstein, Olshausen and others reduced the frequency of the disease to 1 to 4 per cent. Others

have had success with chlorine water, with solutions of formalin, of permanganate of potash, of beta naphthol, of boracic acid, of bichloride of mercury and of other substances. Ordinary water alone has its advocates. Ludwig Korn, in the obstetrical clinic of Dresden, reports much success by conscientiously cleansing the infant's lids and their surroundings with water before opening the eyes. Simeon Snell (*London Lancet*, April 25, 1891,) has adopted the same method in the Jessop Hospital, at Sheffield, England, and in 2,000 infants treated in this way there has not been a case of ophthalmia.

Such experience as this, and much more of a similar character which could be cited, puts beyond question the efficiency of the prophylactic treatment of ophthalmia neonatorum. Then, if this is a frequent disease, if its results even under treatment are deplorable, and if preventive measures diminish its frequency from eight to ten fold, thus diminishing in the same proportion the suffering, misery and loss of money both to the individual and state, by just so much is the importance of prophylaxis in this disease to be weighed and measured. If the disease could be diminished but one-half, its value could not be overestimated, and its practice could not be too stringently enforced. But while it is true that we have these invaluable measures, yet the profession at large is, I fear, indifferent or uninformed regarding them. The physician is not unmindful of the burdens and deprivations of blindness; then he ought to be alive to the need of averting it, and on the alert to use every means toward removing the causes that lead to it. Next to life, sight is the most precious thing on earth. Granting, then, that prophylaxis demands a full and general recognition, which method is preferable?

There is no doubt that contagion can be washed away either from the vagina of the mother or the eyes of the infant, if scrupulously and diligently done, and that even ordinary water will suffice. Were this process of cleansing the mother's vagina and the child's eyes so simple that it could be used under any circumstances, it might be chosen; but it is not. Vaginal injections require intelligent supervision and at least a few special appliances and conveniences in order to be well done, and they are not always at hand. A certain amount of trouble also attaches to their use and their necessary repetition, and even those competent to administer them are disposed to be indifferent and omit them entirely, or, at best, resort to them slightly. The thorough and proper washing of

the infant's eyes is also attended with an amount of concern that requires an intelligence not always present. Hence, vaginal injections or washing the infant's eyes have drawbacks that render them inapplicable as a general and trustworthy prophylactic.

The contagium producing ophthalmia can also be destroyed by certain substances, even without preliminary vaginal douches or searching washings of the eyes, and their application is easy and simple. Those substances which require large dilution, like carbolic acid, boric acid, salicylic acid, permanganate of potash, bichloride of mercury, formalin and others, lose much of their power in such dilution as the eyes will bear, and must be looked upon in this form more as washes than germicides, and they, too, require to be properly prepared and carefully and intelligently administered to be effectual. They have, then, requirements that are liable not to be met, and they cannot be uniformly serviceable in all hands. Hence, germicides in other forms must be sought whose application is more simple and easy. It has been shown that iodoform justifies, at least measurably, the claims that have been made for it, and the method of using it which is followed by Valude, and which has already been described, can be practised by anybody. Should the results so far published be verified in the future, it has this to commend it, that, by its odor and appearance it cannot readily be mistaken for another drug, it is easily obtained and its use causes no marked irritation of the infant's eyes or injury to those handling it. The most objectionable feature it possesses is its offensive odor, and this is of no consequence in comparison with the benefits expected from its use.

Dr. Weeks and others have demonstrated that nitrate of silver is one of the most powerful germicides known. Unfortunately its staining qualities render it inapplicable for general surgical use. But, within a limited range, it has a usefulness that cannot be equaled by any other known substance. As a germicide in the eye its power has been repeatedly demonstrated, and not the least in ophthalmia neonatorum, both as a preventive and curative remedy. The experience that I have already cited indubitably proves that by Credé's method it has such power, and that no special or painstaking washings preliminary to its use are strictly necessary. Having such power, then, and having such simplicity of application to commend it, together with the marvelous results which have been obtained in support of it, why should not this substance and this method become universal? It is harmless to the infant's

eyes, the irritation which it excites being but mild and temporary, and the inexperienced, as well as the nurse, the midwife or the physician, can do so simple a thing as is required in its application.

As to when prophylactic measures should be used there may be difference of opinion. All will agree, however, that they should be used in cases where the mother is known or suspected to have gonorrhea. But the disease often occurs where there is not the slightest history of maternal gonorrhea, where by reason of symptoms or position in society there is no ground for suspicion of its presence. Indeed, there is abundant evidence that cases now and then arise without gonorrhea. Neither is the disease limited, by any means, to those in the lower walks of life, as every practitioner of experience knows.

How, then, and by whom are the suspicious cases to be distinguished from the unsuspecting, the infective from the noninfective? Even if it were true that the cause is always gonorrhea, only a bacteriological examination of the vaginal secretions for the gonococcus would determine its presence and distinguish a gonorrheal from a noncontagious vaginitis; hence such examination would generally be impracticable, and, if practicable, would be useless because of the loss of time required in making it. The history of a case and the presence of symptoms of gonorrhea certainly render it suspicious, but these are often suppressed or masked or cannot be elicited, even by shrewd and inquiring attendants.

It being impracticable, then, to at once and always recognise or determine the presence of the causative principle of the disease, it being true that even the most wide-awake and skilful practitioner, and surely the average midwife, cannot tell when or in what station of life the disease may occur, it seems to be conclusive that there is but one course to pursue, and that is to apply some prophylactic treatment to the eyes of every living infant as soon as practicable after birth. The sequences of ophthalmia neonatorum are too serious, its occurrence is too frequent, and the prophylaxis, particularly Credé's method, so certain, that it is absolutely wrong to neglect it.

Furthermore, if legal obligations placed upon the early recognition and treatment of the disease are found to be necessary, how much more important is it that legislation should make compulsory and general a prophylaxis which insures to public and private good many times the benefits derived from the most skilful and potent treatment of the disease known after it has developed.

Progress in Medical Science.

PEDIATRICS.

REPORTED BY MAUD JOSEPHINE FRYE, M. D.,

Clinical instructor in diseases of children, Medical Department, University of Buffalo.

PEDIATRICS : PAST, PRESENT AND PROSPECTIVE.

DR. S. W. KELLEY, of Cleveland, in an address before the Ohio State Pediatric Society, reprint from *Cleveland Medical Gazette*, made an interesting attempt to solve the future of pediatrics as a specialty, at the same time giving a review of its past and its present standing. To this end he addressed letters to various teachers of pediatrics and to the deans or registrars of the sixty-five colleges in the United States and Canada. The replies he received show that at present pediatrics is taught as a separate branch in fifty schools, in connection with another subject in fifteen. While forty of the teachers interviewed regard the subject as including both the medical and surgical diseases of children, the teaching in thirty-seven colleges covers the medical side alone. In nine colleges only is the teaching entirely didactic. Replying to the inquiry as to the amount of instruction given in this branch ten years ago, the answers show that much progress has been made. Replies from thirty colleges can be analysed. In fourteen of these it was taught as now, in nine in combination with other branches, in four not at all, in three very little. Concerning its teaching twenty years ago thirty-eight schools significantly leave the question unanswered, one only reports it as taught as a separate branch, and six say it was taught but little.

Dr. Kelley further questioned his correspondents concerning the practicability, desirability and probability of the specialisation of pediatrics after the manner of gynecology. The answers received were about evenly divided, and the views of Dr. Kelley himself seem best worth quoting. He says :

I am opposed to the making of specialists in college, and always take in hand seriously the undergraduate who expresses his intention of paying particular attention to a certain branch with a view to making it a specialty when he shall have graduated. It is this kind of specialist who, as much as the advertising quack, has brought the very word into disrepute. I tell my young friend that it will be time enough when he has thoroughly grounded himself in the general principles and practice of his profession, and has had ten or fifteen years of

experience, to think of devoting his time in great part to some one line more than others. I would not discourage any young practitioner from endeavoring to increase his knowledge and perfect his skill in certain particular lines or line according as he may have talent, taste or opportunity to study in that direction, for the field has become too wide for one to become expert in everything: and with quaint old Norris "I think a little plot of ground thick sown is better than a great field, which, for the most part of it, lies fallow." If by and by a man becomes wise or skilful beyond his fellows in a certain line of work, and they keep him so busy therein that he has no time for anything else, I can see no objection to his doing that work, whether he is called a specialist or whether he is called an expert in that line. And if all specialists were made in this way there would be no cause for complaint from anybody. In regard to pediatrics, . . . it is probable that in all large centers of population certain doctors will become known as particularly expert in diseases of children, and whether they are called pediatricists or specialists matters little—they will be called frequently in consultations, and their practice will be largely, perhaps in some instances entirely, among children.

In regard to the progress that is likely to be made in the near future, I cannot agree with those who expect pediatrics to do no more than keep pace with the march of general medicine and surgery. The progress it has made in the past twenty years, the degree to which it has been differentiated from the other branches and separated even from those which were until recently associated with it, the number and value of recent additions to its literature, the promptness with which not only every discovery in general medicine and surgery and all specialties is tried and if practicable modified to suit the cases of children, and the zeal with which earnest workers are pursuing special investigations in this branch, all tell me that pediatrics is destined to make rapid advance in the near future. I believe it will lead out perceptibly and distinctly in the next decade, as gynecology has in the past though not to the same degree. Heaven forbid that it should be "boomed" to that extent.

THE ADMINISTRATION OF ETHER TO INFANTS.

INFANTS (F. Woodhouse Braine, in the *Practitioner*.—*Pediatrics*) are readily brought under its influence without the slightest cyanosis. The young administrator may be puzzled at first how to estimate the degree of anesthesia produced in so young a subject. The writer has found the following method of great service: Place

the index finger in the infant's hand, and it will be found that during the earlier part of the administration the finger is grasped very tightly, the palmar reflex being active; but as insensibility approaches, the infant's fingers gradually relax, and as soon as they become lissom the operation may be commenced. As in the case of adult patients our guide is the conjunctival reflex, so in the infant one should devote his constant attention to the amount of palmar and digital reflex action present. This method is preferable to the conjunctival test, because the conjunctiva of a baby loses its sensitiveness very quickly after being touched a few times with the finger. The infant may appear to be thoroughly insensible by the conjunctival test when it is actually on the point of recovering from the anesthetic, and under such conditions the reapplication of the face-piece will cause struggling, to the great inconvenience of the operator. The writer has never seen bronchitis due to ether produced in a baby, but he is exceedingly careful to guard against cold air being breathed for several hours after the operation. The opening of a window is strictly forbidden, and, when possible, the baby is not even removed from the room in which the operation has been performed for at least six hours, and he finds that when these directions are strictly adhered to there is no danger of bronchitis occurring; moreover, the tendency to sickness is greatly diminished, and this he attributes to the non-stimulation by cold air of the nerves supplying the lungs with the consequent reflex action on the stomach.

USES OF THE THYROID GLAND.

CABOT (*Medical News*, September 12, 1896,) reviews the literature regarding the clinical uses of the thyroid gland. He concludes as follows: (1) Of great value in simple parenchymatous goitre, especially in young people. (2) Of considerable value to reduce weight in obesity, especially in anemic, flabby types, and provided the relapse is prevented by diet and exercise. (3) It seems to deserve a further trial in obstinate cases of psoriasis, sclerodema and lupus; also in tetany, certain phases of insanity and retarded development in children. (4) In exophthalmic goitre it rarely does good and often harm. (5) In chlorosis, rickets, diabetes and tuberculosis the evidence is not sufficient to warrant interference.

Any considerable quickening or palpitation should lead us to discontinue the drug until cardiac action is again normal. There

are no dangers in the use of the drug, provided we begin with small doses, from one to two grains of American extracts, and gradually increase, watching the pulse. It should never be given to a patient who cannot be closely watched.

DIPHTHERIA OF THE NASO-PHARYNX.

FREEMAN (*Medical Record*, October 31, 1896,) calls attention to the fact that the naso-pharynx may be the sole site of the membrane in diphtheria and advises routine examination of this region. The examination may be made with the rhinoscopic mirror, or through the anterior nares, or by bacteriological culture from the vault. He reports in detail four cases in which the membrane appeared in the naso-pharynx alone.

THEORY TO ACCOUNT FOR MELENA.

LORANCHET (*Gazette Heb. de Med. et de Chir.*) attributes melena to the gradual chilling of the surface of the body after birth. The cold acts as a general debilitant and depressant of the nervous system; general circulation is disturbed; peripheral circulation is slowed; the vaso-motor system is unbalanced. The change from the splanchnic cycle of the fetus to the cardia-pulmonary cycle of the new-born infant is interfered with, and in the struggle of the reflexes there is a reversion to the splanchnic cycle with passive congestion of the gastro-intestinal mucous membrane, which gives rise to the hemorrhage.—*Medical Record; Archives of Pediatrics.*

THYROID EXTRACT IN CHOREA.

WOLFSTEIN (*Archives of Pediatrics*, October, 1896,) reports a case of chorea treated with thyroid extract. The patient was a girl of twelve ill with a moderately severe type of the disease: she had not improved under the routine treatment, arsenic and rest in bed. The daily excretion of urine being very small, though not otherwise abnormal, thyroid extract was given on account of its diuretic action. Improvement was immediate and wonderful. The amount of urine, previously from 200 c.c. to 465 c.c. per day, soon averaged 1,000 c.c. The choreic movements were lessened. The patient gained in weight. In a month she was discharged cured. The dose employed was five grains of the extract one, two or three times a day according to its effect on the heart.

GENITO-URINARY AND SYPHILITIC DISEASES.

CONDUCTED BY BYRON H. DAGGETT, M. D., Buffalo, N. Y.

TESTING URINE.

POURING urine into a test-tube containing nitric acid, or pouring nitric acid into a test-tube containing urine usually results in a commingling of these substances without the formation of the distinct white layer, or if albumin be present in small quantity without rendering the urine turbid, since an excessive amount of acid redissolves the albumin. This way of manipulation completely impairs the test. The urine should trickle down the side of the test-tube and float over the acid, when a clear-cut white line will form: some one of the other well-known tests should also be used to confirm the finding of the nitric acid test. Albumin will not emul or precipitate by boiling in strongly acid or strongly alkaline urine, hence the boiling test should be preceded by neutralisation of this excretion.

A ready method of applying the nitric acid test was recently described in this department of the JOURNAL, which will bear repetition. The urine to be tested is drawn up into a pipette and then the acid is drawn in after it. In this way there is surface contact without commingling and a clean-cut, well-defined line of demarcation is formed.

HEMAL HYDRARGYROIODIDE IN THE TREATMENT OF ADVANCED SYPHILIS.

ROBERT (*Centralblatt für Nervenheilkunde und Psychiatric*, May, 1896; *Fortschritt der Medizin*, November 1, 1896; *New York Medical Journal*, December 5, 1896,) recommends this preparation, said to contain 13 per cent. of mercury and 28 per cent. of iodine, in combination with blood pigment.

This combination is said not to irritate the mucous surfaces and passes through the stomach without being dissolved. It not only produces the specific effects of mercury and iodine, but also exerts a mild chalybeate action. Robert advises the following combination:

R Hemal hydrargyroiodide ..	150 gr.
Opium ..	15 gr.
Glycerin ointment ..	q. s.

Mix and divide into a hundred pills. At first give one and gradually increase to four pills, three times daily.

THE SERUM TREATMENT OF SYPHILIS.

TARNOWSKY (abstract from editorial in the *New York Medical Journal*, December 5, 1896,) argues that it is most rational to use serum obtained by a process similar to that employed in the preparation of antidiphtheritic serum, since there are no positive results from employing the normal serum of animals, neither that of animals inoculated with syphilitic products, nor that of persons affected with constitutional syphilis.

The difficulty confronting him was to find an animal susceptible to syphilitic infection; however, he believes he has found such an animal in the foal. He endeavored to syphilise two foals, by applying the virus to incisions, blistered surfaces and by subcutaneous injection. There were no external manifestations of this disease, but there were changes much like those due to syphilis found in different internal organs, in the blood-vessels and lymphatic glands, in the course of two or three months. After repeated inoculations, the blood was drawn from these animals and given hypodermatically to six patients.

After long persistence in this treatment, the disease ran its normal course. Erythema appeared in four cases, with pains in the muscles and joints, also purpura in two instances. Large doses decidedly increased the temperature.

Rekowski (*Gazeta Lekarska*) subjected the young serum-bearing animal to a course of injections of mercury salicylate for the purpose of generating an antisymphilitic serum. This serum bore traces of mercury, as shown by chemical arts. He injected this serum into patients affected with tertiary syphilis in doses of ten cubic centimeters every third day and reports astonishing results. After the third or fourth injection gummatous lesions rapidly disappeared.

Was this a roundabout way of administering albuminate of mercury?

THE PRESERVATION OF URINARY SEDIMENT.

GUNPRECHT (*The Medical Examiner*, November, 1896,) gives a new method of preserving urinary sediments. He centrifugates the urine to form a compact sediment. For safety and convenience the tubes used should have bulbous extremities. If the urine contains blood the sediment, after decantation, should be washed with a saturated sublimate solution, again centrifugated, decanted and the remaining sediment washed in the centrifuge six times with

sterilised water or a physiological salt solution. All this may be dispensed with if there is no blood and but little albumin present. Two to 10 per cent. solution of formal is poured over the sediment, which then remains as a nubecula. Gunprecht alleges that he has preserved sediment in this way for a year, so that casts, cells of various kinds, bacteria and the like, could be examined, stained or unstained.

RADICAL CURE OF VARICOCELE.

DR. FRANCIS W. MURRAY (*Annals of Surgery*, July, 1895,) divides operations for varicocele into three classes: first, the subcutaneous; second, the open; third, the method of ablation. The best results obtained by the first method is by subcutaneous ligation of the veins with sterilised silk or catgut ligatures; this method is simple and easy of performance, and with antiseptic precautions is safe and necessitates but a short period of confinement. It is applicable only in cases of small varicocele requiring only a single ligature. It is uncertain as regards a radical cure, as we can never be sure that all the affected veins are included in the ligature, which is absolutely essential to prevent recurrence; again, there is liability of puncturing a vein, an event which may be attended with unfortunate results.

Since the introduction of antiseptic wound treatment, the preferable open operation has been revived. This operation has been modified by W. H. Bennett, who excises the dilated veins and ties their stumps together. With a patient in a standing position, he estimates the degree of elongation of the cord and decides the amount of varicocele to be removed. He makes an incision an inch and a half in length and exposes the fascia surrounding the veins. The catgut ligature is passed around this fascia, including the veins, at a point as near the testicle as thought proper and tied, the ends being left long. Above the ligature the sheath of the varicocele is freed by the finger from the surrounding tissues sufficiently long to be drawn out of the wound; the second ligature is then passed around the upper end, tied and the ends left long; the varicocele between the two ligatures is excised at not less than a quarter of an inch from the corresponding ligatures; the two stumps are then drawn together and tied with the ligature left for that purpose. The fascia being left intact, all the affected vessels are included within the ligature and the veins cannot be drawn out from their sheath, which is included

in the ligature and helps strengthen the union. There is little or no pain resulting ; the patient is confined to his bed about a week and the suspensory bandage may be left off in a month. The open method performed in this way is simple, certain and without risk. Dr. Murray reports five cases of excision of the veins according to Bennett's method. All healed by primary union, and the results were thoroughly satisfactory ; the average duration of confinement was fourteen days ; four cases were traced from six months to two years after the operation and results remained very satisfactory. The doctor states it as his opinion that the Bennett operation is the one most likely to effect the radical cure of varicocele.

MEDICAL EDUCATION AND STATE LICENSE EXAMINATIONS.

CONDUCTED BY WILLIAM WARREN POTTER, M. D., Buffalo, N. Y.,
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THE OHIO MEDICAL PRACTICE ACT.

THE Ohio State Board of Medical Registration and Examination (*Ohio Med. Jour.*) has nearly finished its labors, having registered up to the present 6,567 graduates of medicine and 588 legal practitioners, a total of 7,155 ; 136 applications have been rejected, and 100 are still pending, making a grand total of 7,491. The total number of names given in Polk's directory of physicians in Ohio is 7,560. Consequently, it is evident that the law has been very generally complied with, as very few physicians remain who have not registered.

MEDICAL PROSTITUTION.

ANOTHER Cheap John medical shop (*Pacific Med. Jour.*) is being or is about to be organised in San Francisco. The medical degenerates must be accumulating in our midst. They seem to be using what little knowledge and ability they possess for the degradation and prostitution of an honorable profession. Not satisfied with offering their services to this, that and the other order or lodge, they are now preparing to organise a health insurance society, which will offer its members a year's medical treatment for \$5. It is not to be presumed, however, that many members will survive a whole year's treatment from, we can hardly say a physician, perhaps doc. will answer, who values his services at considerably less than one cent and a half per visit. Our medical societies

must see to it that their members take no part in such unprofessional, undignified and humiliating transactions. The professional man, in any profession, who abandons all the permanent advantages of professional standing for temporary gain, makes the blunder of his life. We commend to our societies the resolutions adopted by the medical gentlemen of Santa Clara county.

REQUIREMENTS IN MISSOURI.

THE Missouri State Board of Health (*Am. Jour. Surg. and Gynec.*) has taken a stand in advance of all other states, excepting New York, in the matter of requiring every medical student to be possessed of a good education before entering any of the medical schools of the state. And the registrars are not to be judges of whether a "diploma" from a "high school," or "college," is sufficient evidence of the required education; for, hereafter, all prospective students in medical colleges will be compelled to submit to the state superintendent of schools their diplomas from other schools, to be passed upon before the applicant can take a course in medicine. Those who do not possess diplomas from high schools, or institutions whose curriculum is equivalent to the best high schools, will be barred. The request of several Kansas City medical colleges, that students be given a year after entering to complete their course in Latin, was refused by the board, and it was ruled they must be proficient in Latin before entering upon the study of medicine.

The effect will be, as the secretary, Dr. Willis P. King, of Kansas City, says :

When a license to practise medicine is granted in this state hereafter, the recipient will be a man of education and refinement, and no stable hands or car drivers will write "M. D." after their names. These fellows who get a diploma from a school taught by Bill Jones and his wife, down in Bear Creek, cannot become physicians, unless the superintendent of schools decides they have acquired more than the rudiments of education. We may freeze out some of these inferior colleges, or reduce the number of graduates, but it will be a good thing, and the death-rate will be lower.

And all progressive, fair-minded doctors will be thankful that it is so ! Now, let some of the neighboring states follow our example. Unless they do so, they will soon be overrun with the illiterates.

AN INSPECTOR OF MEDICAL SCHOOLS.

A PHYSICIAN of Baltimore (*Md. Med. Jour.*), who has the good of medical education at heart, has made the very sensible and practical suggestion that there should be an inspector of medical schools to see that the required standard was rigidly adhered to, and to compare the facilities offered with the enticing statements made in the catalogues and annual circulars.

RAILWAY SURGEONS ARE EXEMPT.

WE QUOTE a few legal points (*International Jour. Surg.*) from an article by Dr. W. D. Hawaker, of Meadville, Pa., in the *New York Medical Journal*, July 18, 1896 :

Pennsylvania has a liberal yet very efficient law governing the practice of medicine in that state—a law which many of our states would do well to examine and adopt. The framers of the Pennsylvania law foresaw the necessity of reciprocity and have provided for it.

“The law of 1893 has been in force since June, 1894, and has for its main object the examination of all who wish to begin the practice of medicine and surgery in Pennsylvania.

“This law establishes a medical council, composed of the lieutenant-governor, the attorney-general, the secretary of internal affairs, the superintendent of public instruction, the president of the state board of health, and the presidents of the *three* state boards of medical examiners.

“The council issues all licenses to practise, and all candidates for examination and license write to the secretary of the council at Harrisburg, presenting their credentials, and receive permission from him to appear before one of the state boards of examiners.

“Physicians licensed by boards of other states are licensed in Pennsylvania, on filing their licenses, duly certified, together with *proper affidavits showing the standards of the other States to be equal to that of Pennsylvania.*

“Medical officers of the army and navy, marine hospital, *and railroad relief* departments, internes of hospitals, dentists, druggists, and instrument-makers are exempted.

“Physicians of other states can come into the state in consultation with Pennsylvania physicians, and physicians just across the line in other states whose practice extends over into Pennsylvania, can attend their patients, but must not have an office or place to meet patients in this state.

“Practitioners duly registered before March 1, 1894, shall not be interfered with; and one such registry shall be sufficient warrant to practise medicine and surgery in any county in this commonwealth.”

AN ITINERANT PHYSICIAN NOT ENTITLED TO PRACTISE.

THE Supreme Court of Rhode Island, February 11, 1896, (*St. Louis Med. and Surg. Jour.*,) affirmed the decision in the case of Evans vs. State Board of Health, that here was a party who was to be regarded as an itinerant doctor within the meaning of the statute relating to the practice of medicine in that state, which provides that “nothing in this chapter shall be so construed as to authorise any itinerant doctor to register or to practise medicine in any part of this state.” He was a domiciled resident of Boston, Mass., and a practising physician, making a specialty of the treatment of catarrh. His main or regular office was in Boston, and for years past, except when absent from the country or prevented by illness, he had visited Providence in the practice of his specialty on stated days each month. He had no office in Providence, except the rooms he had taken in the hotels at which he stopped. He notified his patients of his visits by advertisements in a Providence newspaper, and had met them in his rooms at the hotels at the times mentioned in the advertisements. He had also, during this ten years, for greater or less periods, been in the habit of visiting, in the practice of his specialty, Worcester, Springfield, New Bedford and Lowell, Mass., in the same manner as he had visited Providence. On these facts the court holds that the decision of the State Board of Health, as above, was correct.

ENTRANCE EXAMINATIONS.

WITHIN a few weeks the medical colleges of our land (*Medical Fortnightly*) will throw open their doors for the reception of students, to start again “the grind” which leadeth to the formation of doctors of medicine. Already the registration of students is going on, and the first year man, yet to have his eye-teeth cut, swells with pardonable pride when his inside pocket contains the matriculation ticket which says that he is enrolled as a student in his chosen college, subject, however, in many cases, to his passing the required entrance examination, which takes place on his arrival at the college. This proviso, he will soon learn, is in the great

majority of institutions of no consequence and merely a bluff to make him think requirements are real instead of apparent.

To a certain extent the movement inaugurated in St. Louis recently by the State Board of Health, to have united action of the various medical colleges of the city, as regards entrance examinations, will be lived up to and will confer benefit upon the profession of medicine. But knowing this fact, there never was a lock devised but that there was a means devised for cracking it ; there never was a law inaugurated but that some schemer devised a plan to defeat its purposes ; and so when it comes to entrance examinations, we know that while the purpose and intent of the law is good, it will here in St. Louis be stretched and distorted so that its own mother would hardly recognise it if she should meet it on the street.

So long as the spirit of commercialism and competition, which, alas ! pervade the " objects and purposes " of such an organisation as a medical college, there will be a letting down of the bars, where in the best interests of the college (?) it is expedient not to draw too fine the line of demarcation between the fit and unfit for the noble, high-minded profession of medicine. We are reminded that competition is the life of trade, and a long list of matriculants and graduates in a medical college annual announcement is supposed to say to its rivals, " trade is booming in our neighborhood." To keep in the swim, the rivals must publish a list of real or straw men of equal or greater length, and the merry war is on. Now, to get matriculants there must be some inducement to draw the students ; either reduced rates or easy examinations must be the attraction—probably both. These matriculants, armed with their bargain-day sale of matriculation tickets, are then gathered beneath the sheltering roof of their to-be Alma Mater, there they must present credentials for the approval of the State Board of Health, and then we see the curtain rung up on the most amusing act in the farce comedy of examinations. Think of such questions as the following being propounded as fit to determine qualifications for entrance into a medical college—namely : How long is a piece of string ? What is the difference between fizz and bumfuzzle ? When does a calf become a cow ? If a dog and a half cost a dollar and a half, what will two dogs cost ? Where was Moses when the light went out ? Some will ask whether the above questions were really asked ; we know to our personal knowledge that an oral examination was commenced with the first question and

ended with the last. In Milwaukee they have a school in which you can graduate by answering the above questions, providing you pay \$35. At Chicago's famous sun-down colleges, one of which is now in trouble with the staid and reliable Harvard University, all you have to do is to certify before a notary that you are competent to practise medicine, and you get your diploma on payment of a nominal fee. No questions asked. Now Missouri has started the ball rolling in the right direction by requiring entrance examinations, but if she wants to keep her name and fame free from tarnish she will have to watch the trap for the unfit, now that she has set it, to see that its springs work and that some fellow don't fool with the machine. We hope to see the determination of the necessary qualifications of individuals to study medicine, and to practise it, determined by a board of examiners. The present lock is a good one, but it is so easily cracked by those who know how.

THE MARYLAND EXAMINING BOARD.

IN this issue (*Maryland Med. Jour.*) are presented the questions with the results of examinations of the State Board of Medical Examiners of Maryland, together with a tabulated report of the work of that board since its formation in 1892.

Many persons have taken occasion to cast slurs on examining boards, saying that the men on them not being connected with medical schools have no experience in such work and ask absurd questions which they themselves would not be able to answer. Others maintain that such tests are not fair.

It must be, however, admitted that state examinations are, on the whole, a great benefit to the profession and to the public. There is attempted an equalisation of all graduates and a general standard of all physicians in one state is held. If states could agree on a national board by which any physician could practise anywhere in the United States it would be a little more fair.

In looking over the reports of any board, it is seen that graduates from some schools always stand high, with some exceptions, while other schools show a majority of rejections. The natural conclusion is that all medical schools do not maintain the same standard.

If the state board could have additional powers whereby they could demand that schools keep up to a fixed standard and give all the facilities set forth in their catalogues and prospectuses, the number of failures at the state examination might not be so large.

DR. CHAS. C. WADSWORTH, secretary of the California State Board of Examiners, has removed his office and residence to 1104 Van Ness avenue, between Geary and Post streets, San Francisco.

NEW MEMBERS OF THE MEDICAL EXAMINING BOARD OF VIRGINIA.

TO FILL the vacancies caused by the deaths (*Va. Med. Semi-Monthly*), since the session of the Medical Society of Virginia in September last, of Dr. J. Edgar Chancellor, of the seventh congressional district, and of Dr. H. M. Patterson, of the tenth congressional district, the Executive Committee of the State Society has nominated for commission by the Governor of Virginia, Dr. E. M. Magruder, of Charlottesville, and Dr. Charles W. Rodgers, of Fishersville. These gentlemen are expected to fill the unexpired term until November 1, 1898. Dr. Magruder was instructor in physical diagnosis in the University of Virginia, and his abilities as a practitioner are well known to the profession. Dr. Rodgers passed the Medical Examining Board of Virginia during 1885—the first year of the going into effect of the law establishing the board.

MEDICINE, PATHOLOGY AND THERAPEUTICS.

Conducted by a member of the editorial staff.

SENILE "PNEUMONIA."

IT IS a common custom among physicians (*Denver Med. Times*) to call nearly every case of acute pulmonary disorder, pneumonia, particularly if the attack is accompanied by rapid and difficult breathing and pain in the chest; yet these are cardinal symptoms of phthisical exacerbations, of pleurisy with effusion, and of pulmonary edema. Dr. L. D. White voices the well-established truth when he states that the acute lung disorders in the aged generally termed pneumonia are in reality nearly always instances of pulmonary congestion from weakened circulation, which may be dependent on feeble heart action or valvular trouble, on obstruction to the systemic circulation from renal or hepatic disease, or on general atheromatous conditions; the most prominent symptom in these cases is dyspnea. Venous obstruction is shown by livid lips and pale purple cheeks; the skin is doughy and puffy; the temperature may range high or be even subnormal; normal pulse-respiration ratio is impaired; the eye loses expression and may show *arcus senilis*. It is important in such cases to see that the bladder

is emptied, and to examine the urine for renal derangement. Of all drugs, strychnine is the most efficient here. If the kidneys do not functionate, infusion of digitalis or the hot-air pack should be employed. Caffeine can be relied upon in cardiac complications. Small doses of whisky or brandy often repeated are of more value than larger amounts at infrequent intervals. The clean light pneumonia jacket of cotton wadding is far preferable to the old-time poultices. The room ought to be well ventilated and be kept at a temperature not above 60° F. Nourishment should be liquid. The bowels may be moved daily by an enema of oil and suds.

TYPHOID FEVER FROM ICE CREAM.

AN outbreak of typhoid fever (*Boston Med. and Surg. Journal*) occurred in the latter part of July in the town of East Barrington, N. H. The cases were all traced to a single source. The first case was an unrecognised one, the patient being unwell but helping about the house and doing part of the milking. It is supposed that he must have in some way contaminated the milk, as by going to stool and not washing his hands before returning to the milking. The water supply was carefully examined and found to be all right. On Friday evening a party was given at the house and guests ate of ice cream made at home from the milk supply referred to above. Within the next ten or fourteen days, fourteen of the guests came down with the typhoid fever—eight in the town of Barrington, of whom one died; two in Lee; one each in Dover, Rochester and Woodbury, N. H., and one in Haverhill, Mass. All of these out-of-town cases were guests at the party. No other cases occurred in the town and all were partakers of the cream.

TREATMENT OF PERTUSIS.

JOSIAS, in his new work, *Therapeutique Infantile* (*Universal Med. Magazine*), recommends the use of thymol instead of carbolic acid as a spray in this disease. A vessel containing the following solution is placed over a small night-lamp in the room and allowed to evaporate: R Thymol, 10 grammes ($2\frac{1}{2}$ drachms); alcohol, 300 grammes ($9\frac{1}{2}$ ounces); water, 700 grammes ($22\frac{1}{2}$ ounces). At the Trousseau Hospital an alcoholic solution of thymol and menthol is used several times a day for spraying the rooms set apart for whooping-cough cases. A vapor-atomiser and the following formula are employed: R Thymol, 6 grammes ($1\frac{1}{2}$ drachms); menthol, 6 grammes ($1\frac{1}{2}$ drachms); alcohol at 90°, 120 grammes (4

ounces). A tablespoonful in the atomiser, which has been previously filled with water.

CONTINUED FEVER, NOT TYPHOID.

RECENTLY J. M. Da Costa related (*Phila. Polyclinic*) several cases of continued fever of long duration, differing thus from the ordinary type, which he had no hesitation in diagnosing as such to the exclusion of typhoid fever. Every physician of large experience meets with such cases. In his earlier practice, doubting perhaps his own ability, he manages them on a "probable diagnosis" of typhoid, and does, at least, no harm. In recent years such cases have been, doubtless, termed "influenza," just as in earlier years genuine cases of catarrhal fever were termed typhoid; yet they possess still less in common with influenza than with enteric fever. At present in Philadelphia such cases are more common than at any former time. They are not influenza, not abortive typhoid, and while it is exceptional now as formerly to find cases of the long duration described by Da Costa, yet the tendency to long continuance in the absence of treatment is marked.

Cases differ in semeiology almost as much as patients differ in physiognomy; they are doubtless of varying etiology and mechanism, yet an attempt at strict classification would be as futile as such refinement in diagnosis is unnecessary.

What is needed is to exclude the recognised specific infections (including malaria), and, this being done, to manage the case on general principles, as one of acute intoxication. The toxic agent may have been introduced from without, in food or water, or may have been generated within the body as a result of the chemic or biologic action of an agent from without, or through failure of physiologic function. The cause and process cannot always be traced. The treatment is to put the patient at rest, cleanse the *primæ viæ*, regulate the diet, promote comfort by sponging with cool or tepid aromatised water, and give drugs only in the presence of some definite indication. Usually such a definite indication is given by the character of the stools, and an insoluble "intestinal antiseptic" is of service. Sometimes a general tonic, such as strychnine or quinine in small doses, is called for. Alcohol is rarely needed. Coincident bronchitis may require the exhibition of a terebinthinate or an ammonium salt. However, as before noted, drugging is not urgent, and must be a matter of good judgment.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITORS:

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THE YEAR.

THOUGH the year just closed has not been fraught with great achievements or startling developments in so far as relates to the local medical profession, yet there have been some incidents that deserve to be remembered, as well as some good work done, and we appropriate a little place to a review of such as seem most important.

One of the most interesting events of the year was the observance of its 75th anniversary by the medical society of the county of Erie at its regular annual meeting, held January 14, 1896. The attendance was large, and great interest was manifested in the proceedings. Dr. Franklin C. Gram, secretary, read a historical sketch of the society, beginning with its organisation in 1821 and bringing it forward to the present time. It was full of incidents, interspersed with humorous illusions, and is a decided contribution to the archives of the society.

Dr. John Hauenstein, who became a member of the society in 1844, read a paper giving some reminiscences of the profession in its earlier days, and told of the first uses of anesthetics in the county. Dr. C. C. Wyckoff read a paper giving an account of the establishment of Buffalo University Medical College, and Dr. John Cronyn contributed a similar one relating to Niagara University Medical College. Dr. Edward Storek presented a paper relating to the work of the board of censors during the twelve years he was chairman that possessed historical value. All these papers have been printed in the JOURNAL; likewise a separate reprint of them has been issued to the members of the society.

The Buffalo Academy of Medicine has held its regular quarterly meetings, and the various sections thereof their usual weekly sessions, on which occasions interesting papers have been read and discussed and clinical cases reported. If the academy had published a record of its work it would be convenient to present a synopsis or an analysis of it at this time. We desire to accentuate the importance of publishing an accurate record of society work in the local journal, for whoever writes the history of the profession in the future will sadly miss such a record of the academy's proceedings during the last four years. The medical profession of a city like Buffalo should find itself recorded in the pages of its local journal, both in the contribution of papers and in accurate society reports. Papers published in journals away from home do little permanent good to authors, because they are scattered here and there and are not accessible to either historian or the compiler of home scientific work.

In several instances prominent men from a distance have contributed papers during the year, among whom we may mention Dr. A. C. Abbott and Dr. John B. Deaver, of Philadelphia, and Dr. C. B. Nancrede, of Ann Arbor. This plan is to be commended, and we hope will be repeated at frequent intervals. It gives a freshness to the character of the meetings and serves to stimulate enthusiasm. It ought to be remembered, however, that the academy owes it to its guests on such occasions to give them full houses.

The private medical societies, among which we may mention the Medical Club, the Medical Union, the Roswell Park Medical Club and the Buffalo Microscopical Society, are also to be credited with the usual amount of good work, but again records are inaccessible.

Mr. George W. Rafter, civil engineer, of Rochester, read a paper before the Microscopical Club on Lake Erie as a Water Supply, which was published in this journal.

The JOURNAL surprised and probably startled some of its readers and friends by publishing a Woman's Edition in June. This issue, in all its departments, was the work of women physicians, and it may be truthfully asserted that it was quite equal in quality and appearance to its other eleven numbers. At all events, it was commended for its excellence by its contemporaries and readers.

One of the principal events of interest during the year was the meeting of the American Public Health Association, held September 15-18, 1896. This distinguished body came to Buffalo in large

numbers and held one of its most interesting and successful meetings. It was presided over by Dr. Eduardo Licéaga, a distinguished physician from Mexico, who brought with him a delegation of thirty members. A synopsis of its proceedings appeared in this journal for October, 1896. Among the officers which it elected for the current year was Dr. Ernest Wende, vice-president, which was a fitting recognition of his excellent work as chairman of the local executive committee, and especially for his splendid record as health commissioner of Buffalo.

The semicentennial anniversary of the introduction of surgical anesthesia was commemorated at Buffalo University Medical College, October 16, 1896, with public exercises. Introductory remarks were made by the Hon. Jas. O. Putnam, chancellor; a historic address was made by Prof. Roswell Park, and some interesting reminiscences were related by Dr. E. M. Moore, of Rochester. Dr. Hauenstein and Dr. Wyckoff, of this city, also added a few items of local interest.

The literary contribution of the year is a system of surgery by American authors, edited by Dr. Roswell Park, of Buffalo, who is likewise the principal author of the work.

It will readily be observed from this synopsis that, taken altogether, while perhaps, as we have before remarked, no startling achievements have been made by the medical profession in this vicinity during the year 1896, yet the record is an honorable one and will result in the accomplishment of much good. A subject for special congratulation is that we have been singularly exempt from sickness and death in our ranks, a blessing for which we are all truly thankful. As a final remark, let us hope that the coming year, 1897, will yield as much of happiness and professional credit as did its predecessor.

THE HEALTH DEPARTMENT—ITS NEW APPOINTEES.

ON WEDNESDAY, December 2, 1896, his Honor, Mayor Edgar B. Jewett, announced the appointment of Dr. Ernest Wende as health commissioner for a term of five years, beginning January 1, 1897, to succeed himself. The next day it was given out that Dr. Wende would appoint Dr. Walter D. Greene to be deputy health commissioner for the same term.

Scarcely a more gratifying circumstance could have happened in Buffalo than this action of the Mayor. The record Dr. Wende

has made in the office during his term just ended is such as to justify on every account, and from every view-point, the action of the Mayor, and the fact that it has met with such uniform acquiescence is the strongest kind of an endorsement of the Mayor's action.

The fact is that the health department should be divorced from politics, and that appointments therein should be made with due regard to merit and efficient work, rather than to please any political party or faction thereof. Mayor Jewett has demonstrated his independence of action by resisting a pressure that must have been



ERNEST WENDE, M. D.,
Health Commissioner of Buffalo.



WALTER D. GREENE, M. D.,
Deputy Health Commissioner of Buffalo.

extreme. There are some men stupid enough to demand that a republican mayor must appoint only republicans to office, just as there are some others so stupid as to think that the worst kind of a democrat is better than the best kind of a republican. The JOURNAL does not discuss politics, nor has it any sympathy with either of these extremes. The record Buffalo has obtained for good health and a low death-rate rendered it "dangerous to swap horses in the middle of the stream," as Mr. Lincoln was wont to say, hence, the only logical course was the reappointment of Dr. Wende.

Dr. Wende's action in promptly announcing the appointment of Dr. Greene was commendable. Dr. Greene's ability is unquestioned, and he has demonstrated his competency as the head of the

department under the old charter. His many friends will be glad to see him again performing service in this department. We herewith present sketches of both these accomplished officers.

Ernest Wende, M.D., B.Sc., F.R.M.S., was born at Mill Grove, N. Y., on July 23, 1853. He began his education in his native town and after attending the district school he entered the Clarence Academy and later was graduated from School No. 10 in this city. He entered the Buffalo High School and, after graduating, spent a year at West Point. By teaching school for a few terms at South Newstead and in the town of Alden he managed to earn enough money to enter the University of Buffalo, where he graduated with honors in 1878. Then he was elected school commissioner for three years and afterward took a post-graduate course at the College of Physicians and Surgeons, New York. He finished the course in 1882 and entered the University of Pennsylvania. In 1884 he was graduated, taking honors of the first class. While there he took the George B. Wood alumni prize. There were forty-three competitors. In 1885 he received the degree of Bachelor of Science from this college.

After he was graduated from the University of Pennsylvania, Dr. Wende went to Berlin and Vienna. He was a student in Prof. Virchow's private laboratory, making a special study of pathology. He also took a special course in bacteriology under Prof. Koch. He was assistant to Prof. Behrend in his clinic on diseases of the skin. He also pursued the study of skin diseases under Profs. Köbner, Lewin and Lassar at Berlin. At Vienna he continued his studies in dermatology under Profs. Kaposi, Neumann, Ullmann and Hebra. He returned to Buffalo in 1886, since making a special practice of skin diseases.

Soon after his return he was appointed clinical professor of diseases of the skin in the University of Buffalo. When Prof. Kellcott was called to the University of Ohio he succeeded him as professor of botany and microscopy in the department of pharmacy, University of Buffalo.

In 1892 Dr. Wende was appointed health commissioner by Mayor Bishop, the first to serve under the new charter.

Dr. Wende is a member of the Royal Microscopical Society of London; vice-president of the American Public Health Association; member of the business committee of the Medical Society of the State of New York, 1897; Fellow of the American Electro-Therapeutic Association; Fellow of the American Microscopical

Society ; member of the Medical Society of the County of Erie ; member of the Buffalo Society of Natural Sciences ; member of the Buffalo Academy of Medicine, of the Buffalo Medical Club and of the Buffalo Medical Union, and one of the associate editors of the **BUFFALO MEDICAL JOURNAL**.

Walter D. Greene, M.D., was born in Starksboro, Vt., in 1853. He first went to the country school near his home, and then attended Union Seminary at Union Springs, N. Y. He was graduated in 1871. Later he entered the medical department of the University of Buffalo, where he was graduated in 1876. He then became attached to the Rochester City Hospital.

He began to practise in Mendon, Monroe county, in 1878. Two years afterwards he opened an office on Elk street in this city. He was made a district health physician in 1882, and in 1889 was appointed city health physician. In 1891 he took the chair of hygiene and preventive medicine in the Niagara University Medical College. Dr. Greene is a member of the Medical Society of the County of Erie, of the New York State Medical Association, the Buffalo Academy of Medicine and the Buffalo Club, a director of the Acacia Club and of the Masonic Life Association of Western New York.

TOPICS OF THE MONTH.

THE Medical Association of the District of Columbia through a special committee has made an investigation in regard to hospitals and dispensaries in the City of Washington, and has sent out the report of this committee, entitled *Hospital and Dispensary Abuse in the City of Washington*. The conclusions of the committee are certainly such as commend themselves to every reasonable person and we append them for the consideration of our readers, as they are equally applicable to localities outside the District of Columbia. The report concludes as follows :

Your committee recommends :

1. That every institution requires written evidence, in the form of a certificate, from every applicant for free treatment at every institution supported in part or in whole by the government.

2. That there be a central distribution Bureau, where all applicants for free medical aid be required to apply, present their evidence, and receive the certificate necessary to their admission to any charitable medical institution. such certificates to continue in force for thirty (30) days.

3. That this bureau be in charge of a salaried medical officer, whose record of applicants shall be open for public inspection under certain restrictions.

4. That cases of sick and injured persons found upon the streets, in the stations, or elsewhere, which upon investigation are proper subjects for treatment, be carried to their homes, and if they have no suitable homes to the nearest hospital.

5. That cases brought from the States be refused treatment in the public wards of a hospital, and that such cases be compelled to pay for services or be excluded from the charity of the city.

6. That the physicians to the poor be paid larger salaries, that their number be increased, and that they be required to attend more closely to their duties.

7. That in future the members of the medical staff of hospitals and dispensaries be elected for a term of not more than four years, and be ineligible for an immediate reelection.

8. That the Medical Association of the District of Columbia oppose the further appropriation, either from Congress or the Commissioners of the District of Columbia, to any or all institutions which are found to abuse medical charity.

9. That the reputable members of the profession be allowed to attend patients in all the hospitals of the city. In submitting this report your committee requests the members of the Medical Association to bear in mind that we are not expressing our personal sentiments only, but those of our correspondents, and further that we have declined to make any investigation of cases of abuse communicated, nor have we visited any institution in quest of evidence, preferring to allow the executive of each institution questioned to answer as was thought best.

LLEWELLYN ELIOT, M. D.,	ROSIER MIDDLETON, M. D.
CHARLES G. STONE, M. D.,	ELMER SOTHORON, M. D.,
F. B. BISHOP, M. D.	<i>Committee.</i>

THE opening of the Frick Library at Baltimore was celebrated December 10, 1896, with appropriate ceremonies, under the auspices of the medical and chirurgical faculty of Maryland. The following program was carried out :

Statement of the condition of the library and of the medical and chirurgical faculty, and of the section to be known as the Frick Library, by the president of the faculty. Address, commemorative of the donor, Dr. Charles Frick, by Dr. Samuel C. Chew ; Tribute of a personal friend, by Mr. Reverdy Johnson ; Remarks on the value of libraries to the profession by Dr. J. M.

Da Costa, president of the College of Physicians, of Philadelphia, and by Dr. Joseph D. Bryant, president of the Academy of Medicine, New York.

These exercises were attended by a large number of people and the occasion was most agreeable to the medical and chirurgical faculty of Maryland. Dr. William Osler, the president, is entitled to much credit for active interest in the matter and for the great progress that has been made during the past year in bringing it to a conclusion. Dr. Osler entertained the trustees and invited guests at luncheon as well as at dinner, and in the evening the members became the guests of the faculty. Invitation to the exercises was received by the JOURNAL, but unhappily it was impossible for us to accept. We beg, however, to acknowledge the courtesy with thanks.

FOR the first time in the history of Maryland, a midwife has been convicted and fined for neglecting to report to some physician, or to the health commissioner, the diseased condition of the eyes of a new-born infant. The law, according to the *Maryland Medical Journal*, has been in force for two years, but it is always difficult to enforce new laws or to obtain adequate punishment for their violation when the culprits are found among ignorant people.

The prosecution in the case in question was conducted by Dr. John Fulton, secretary of the State Board of Health, upon information furnished him by Dr. Hiram Woods, of Baltimore. The baby victim was born in April, under the care of a Mrs. Liersman, a registered midwife. It was proved that purulency appeared on the fourth day, but the midwife took no heed thereof, excepting to advise the application of chamomile tea and warm breast milk. In July, the baby was brought to the Presbyterian Eye, Ear and Throat Charity Hospital, after both corneas had sloughed.

The case was completely proven and the justice judged her guilty, but on account of her ignorance imposed a fine of but \$25 and costs. Though the punishment is a light one, it serves as a beginning, and will prove a warning to midwives in future, in every state where adequate laws on the subject exist.

THE medical inspection of the schools is a subject that is just now pertinent to discuss. The health department of New York, becoming convinced that one of the greatest sources of transmission of

infectious and contagious diseases among children is through contact with each other in school, has asked for an appropriation in order to appoint medical inspectors for all the schools in the city, public, private and parochial.

We have been of the opinion for a long time that some method should be adopted to prevent or restrict certain practices that are permitted in the schools. Drinking from the same cup is such an abominable custom we are surprised that any intelligent educator should permit it under his jurisdiction. In like manner, too, towels should be used but once, and various other limitations placed on the liability to spread contagion. One of the most important offices that can be performed is a regular system authorising official inspection of public schools under the direction of the health department, and which should be made so rigid and so frequent as to impress its importance, not only upon the principals and teachers, but upon the pupils themselves. We are aware of the difficulties that present themselves in establishing such a radical improvement, but the reasons are so potent, and are such as to strongly appeal to every intelligent person, that we hope it will not be long before the Buffalo health department will institute such a reform. The plan has been found to work well in Boston, and we see no good reason why it should not be tried in New York and Buffalo.

FOLLOWING close upon the suggestion made in the edition of the JOURNAL for December, in which it advocated the conversion of the Buffalo library into a free public library, came the announcement in the newspapers of December 2d that the matter was being seriously considered by the managers of the library. The statute of last winter taxing the property of institutions of all kinds that was not occupied for the special uses intended by law, brings the matter home to the library managers in a business way. The principal property from which the library draws its revenue is the Iroquois Hotel, and, after paying the interest on it and the taxes besides, there is little left for the support of the institution: or, to state it more truthfully, even to use a paradox, the credit is on the debit side of the ledger. In our opinion, the city should come to the rescue with an appropriation sufficient to convert the library into a free institution, and at the same time invite philanthropists and public-spirited citizens to leave bequests that in time would tend to make it self-supporting.

It is announced that the free baths will open to the public January 1, 1897. It is to be hoped that the good news will prove true, and that every one entitled will avail themselves of the privileges thus afforded. The mayor has appointed a man and his wife to act as janitors, and the charity organisation society has insisted that the towels shall be free, thus making it possible to obtain an absolutely free bath in a city that heretofore has not provided such a luxury to the needy.

CHRISTIAN SCIENCE, a so-called system of cure that is neither Christian-like nor scientific, received another set-back a short time ago. It appears that the coroner of Scranton, Pa. (we quote the *Cincinnati Lancet-Clinic*), after investigating the death from diphtheria of a boy who had received no other therapeutic consideration than the prayers of Christian scientists, held the boy's father and two other faith-curists for criminal neglect, and the district attorney has issued warrants for their arrest. It is to be hoped that the law in Pennsylvania is such as to bring the criminals to speedy judgment.

Personal.

DR. P. O. HOOPER, of Little Rock, Ark., has been restored to the superintendency of the State Lunatic Asylum, located in that city, from which he was deposed about four years ago through political chicane. It will be gratifying to Dr. Hooper's many personal friends, as well as to everyone interested in the welfare of the insane, that he has been reappointed to this place from which he was so ruthlessly thrust by the merciless hand of politics.

DR. DARWIN COLVIN, of Clyde, N. Y., chose, Medical expert testimony as the topic of his presidential address to the New York State Medical Association, at its late meeting, October, 1896. Dr. Colvin has presented this subject in an interesting light, and we beg to acknowledge with thanks the receipt of a copy thereof, reprinted from the transactions.

DR. C. C. FITE, of New York, read a paper before the Lycoming County Medical Society at Williamsport, Pa., December 1, 1896,

entitled, Antidiphtheritic and antistreptococcic serum: their natural method of production and application for the relief of diseases. This interesting paper is published in full in the *Maryland Medical Journal* of December 19, 1896.

DR. DANIEL LEWIS and Dr. Charles L. Ogden, of New York, have formed a copartnership and have removed their offices to No. 252 Madison avenue, near 38th street. Dr. Lewis's hours are 10 to 1, and by appointment; Sundays, 10.30 to 1. Dr. Ogden's hours are 8 to 10, 2 to 3 and 5.30 to 7.30, and Sundays by appointment. Telephone 1832, 38th street.

DR. L. SCHADE, of Buffalo, sailed for Europe in mid-December, for the purpose of paying a visit to his old home at Mecklenburg, Germany. He will be absent but a few weeks.

DR. MAX KEISER, of Buffalo, who is pursuing his studies at the General Hospital at Vienna, has been designated as third assistant to Prof. Politzer, a privilege accorded to but few American graduates.

College, Hospital and Dispensary Notes.

THE NEW GERMAN DEACONESS'S HOME AND HOSPITAL.

ON NOVEMBER 21-26, 1896, occurred the dedication ceremonies of the new German Deaconess's home and hospital, situated on Kingsley street near Humboldt parkway. As the hospital division promises to be a leading feature, and therefore of interest to the profession of Buffalo and vicinity, a short sketch of the building and purposes of the association may be of some interest to the readers of the JOURNAL.

About two years ago, the idea of establishing in Buffalo a Deaconess's Home, Hospital and Home for the Aged, was first conceived in the minds of a few of Buffalo's worthy citizens. A number of private meetings were held, and, after careful deliberation, it was decided to call a public meeting to present the plan to the people. Such a meeting was held on February 26, 1895, in the St. Paul's German U. E. church, on Ellicott street. The inter-

est and enthusiasm manifested was such as justified the organisation of a society whose object is to further the interests of the work. This society is now known as the Deaconess's Association of Buffalo.

On October 23, 1895, the association rented a building on Goodrich street, and the first patient was admitted on November 14, 1895. The success of the venture was positive from the outset, and in the spring of 1896 the erection of a new and commodious building was taken into consideration. Without unnecessary delay a desirable site and appropriate plans were secured, and the process of building was begun. Now, after an elapse of but thirteen months, the association is enabled to open to the public a structure of which it can justly be proud. Though plain and unpretentious in appearance, it is well adapted to its uses, and is a



GERMAN DEACONESS'S HOME AND HOSPITAL.

noble addition to the new and charitable institutions of our beautiful city. The home is constructed in three distinct divisions: the central, or main division, is intended as a home for deaconesses and working women; the east wing will be used for hospital purposes, and the west wing as a home for aged men and women. Each division will accommodate about forty inmates. The east wing, containing the hospital department, is arranged as follows: The basement is divided up into a kindergarten room, which is a sort of creche, intended for use when the work develops, though nothing will be done with it at present; a polyclinic waiting-room, drug department and office. On the first floor are two wards for men, a small children's ward, five private rooms, a day room and a diet kitchen. On the second floor is the operating room, connecting with a medicine and preparing room. There are also two wards, five private rooms, a day room and a diet kitchen for the

women patients, and on the third floor are eight rooms to be fitted up in case of necessity.

The medical staff of the hospital comprises the following physicians: Consulting physicians, Conrad Diehl, M. D., Louis Schade, M. D., Charles Wetzel, M. D.; attending physicians, DeLancey Rochester, M. D., E. S. Tobie, M. D., Wm. Gaertner, M. D.; attending surgeons, Herman Mynter, M. D., Roswell Park, M. D., Eugene Smith, M. D.; gynecologist, M. D. Mann, M. D.; ophthalmologist, Edmund Blaauw, M. D.; laryngologist, W. S. Renner, M. D.; dermatologist, Alfred Diehl, M. D.; diseases of children, Irving M. Snow, M. D.; neurologists, James W. Putnam, M. D., Wm. C. Krauss, M. D.; pathologists, Herbert Williams, M. D., Earl Lothrop, M. D.; obstetrician, Henry G. Bentz, M. D.; resident physician, Dr. Graff.

The success of this undertaking is due largely to the persistent and sacrificing efforts of the Rev. Carl Schild, who very properly becomes president of the board of directors, to the generosity of J. F. Schoellkopf, and the medical department owes much to the thoughtful care of Dr. Eugene A. Smith. The management of the home is under the general supervision of the sister superior, Miss Tobschall, known to the inmates of the home as Sister Ida. Miss Mary Barth, a graduate of the Buffalo General Hospital, has been engaged as superintendent in the hospital department of the new building. Mrs. Eliza Loy will have the supervision of the home for the aged.

THE German Dispensary, lately organised in Buffalo, was opened December 14, 1896, at 621 East Genesee street, with the following staff: President, Chas. H. W. Auel, M. D.; vice-president, Gustave Pohl, M. D.; secretary, Max Breuer, M. D.; house committee, Drs. L. Schroeter, S. Goldberg, Henry G. Bentz; general practice, Drs. E. E. Koehler, Henry Osthus, Fr. Thoma, Julius Ullman; surgery, Drs. J. G. Meidenbauer, M. Hartwig; consulting surgeon, Dr. Herman Mynter; diseases of women, Drs. Chas. H. W. Auel, Max Breuer, S. Goldberg; psychiatry and diseases of the nerves, Drs. William C. Krauss, H. G. Matzinger, William Meisburger; diseases of children, Drs. L. Schroeter, G. Pohl, C. H. W. Auel; ophthalmology and otology, Dr. E. Blaauw; consultant, Dr. Lucien Howe; genito-urinary and skin diseases, Drs. J. M. Kraus, A. Jokle, G. W. Wende; consultant, Dr. Ernest Wende.

The present number of active members is twenty-two, which

may be raised to the limit of twenty-five. There are three consulting physicians and surgeons as above indicated.

The aim of the dispensary will be to accept none but patients absolutely too poor to pay a fee. A committee of three directors will act as investigating committee, scrutinising the list each week with a view to ascertain if any patients not entitled to charity are being treated. It is expected that this committee will communicate with the district physicians of the health department, also every attending physician at the dispensary will make himself familiar with the social condition of each patient, rejecting such as are found able to pay for medical treatment. If the dispensary staff carries out these well-formed resolutions to the letter it will be entitled to the confidence of the community.

Society Meetings.

THE Medical Society of the State of New York will hold its ninety-first annual meeting at Albany, Tuesday, Wednesday and Thursday, January 26th, 27th and 28th, 1897, under the presidency of Dr. James D. Spencer, of Watertown. The other officers are : Vice-president, Dr. L. Duncan Bulkley ; secretary, Dr. Frederick C. Curtis, 17 Washington avenue, Albany, N. Y. ; treasurer, Dr. Charles H. Porter, 103 Lancaster street, Albany. The business committee is composed as follows : Seneca D. Powell, chairman, 12 West 40th street, New York ; Willis G Macdonald, 27 Eagle street, Albany ; Ernest Wende, 471 Delaware avenue, Buffalo. Chairmen of standing committees : arrangements, William J. Nellis, Albany ; on by-laws, H. D. Wey, Elmira ; on hygiene, Henry R. Hopkins, Buffalo ; on legislation, A Walter Suiter, Herkimer ; on ethics, Charles Jewett, Brooklyn ; on prize essays, Abraham Jacobi, New York ; of publication, F. C. Curtis, Albany.

Up to the time of going to press with this edition of the JOURNAL, December 24th, the provisional program had not been issued, but certain features of it have been made known from which we group the following :

There will be three general discussions of importance : one pertaining to medicine, one to surgery, and another to obstetrics. The surgical discussion exclusively devoted to the field of rectal surgery, will be led by Professor Joseph M. Mathews, M. D., of

Louisville, Ky., the well-known author and teacher in this department. Other participants will be Drs. Daniel Lewis, Charles B. Kelsy and Robert T. Morris, of New York ; George R. Fowler, of Brooklyn, and Edward Clark, of Buffalo.

The medical discussion will be devoted to the relation of impure drinking water to disease, and will include the cure and prevention of disease. These will be considered under the following heads :

(1) Common causes of the contamination of drinking water : (*a*) mineral ; (*b*) living organisms : from soil, from intestinal tracts of man, from urinary tracts of man ? (2) Diseases which can be directly traced to contaminated drinking water : (*a*) mineral poisons ; (*b*) bacterial and protozoon infection : soil, malaria, feces, urine, diarrhea, cholera, typhoid, fever, etc. ? (3) Dangers of the domestic use, other than drinking, of contaminated water. (4) Methods of purification of impure water. (5) Methods of prevention of pollution of water. (6) Bacteriological diagnosis of typhoid fever. (7) Typhoid fever in children. (8) Treatment of typhoid fever : (*a*) medicinal and dietetic ; (*b*) external and internal use of water ; importance and practical methods of disinfecting the excreta from typhoid patients.

Dr. Charles G. Stockton, of Buffalo, will present the subject (*b*) section 8, The value of external and internal use of water in typhoid fever. Other participants will be Drs. T. M. Cheesman, J. S. Billings, G. R. Freeman, A. H. Ely, W. G. Thompson, of New York ; G. A. Blumer, Utica ; Thomas B. Carpenter, Buffalo ; F. C. Curtis, Albany ; W. S. Ely, Rochester.

The obstetric discussion will be as follows : (1) Introduction : Puerperal eclampsia, by William Warren Potter, of Buffalo. (2) Indication for, and technique of, the induction of premature labor, by James P. Boyd, Albany. (3) Infection of the puerpera, by A. B. Miller, Syracuse. (4) Obstetric delivery by abdominal section : indications and methods, by W. G. Macdonald, Albany. (5) Subject to be announced, by William M. Polk, New York. (6) Relations of posterior displacements to pregnancy : treatment by a new method, by M. D. Mann, Buffalo. (7) Present treatment of fibroids associated with pregnancy, by A. Vander Veer, Albany.

The usual railroad rates will be secured, and it is expected that the attendance will be large. Hotel accommodations should be secured by letter in advance, as Albany is generally crowded with people in midwinter.

It is important that the delegates from the Medical Society of

the County of Erie should attend these meetings in full force and with regularity.

THE Buffalo Academy of Medicine held meetings during December, 1896, as follows :

Section on Surgery.—Tuesday evening, December 1st, with the following program : A brief review of the general technique of certain cranio-cerebral operations, by Dr. C. B. Nancrede, of Ann Arbor, Professor of Surgery, University of Michigan. Presentation of cases : I. Nerve anastomosis ; II. Removal of Meckel's ganglion for neuralgia ; III. Wound of occipital sinus—trephined, by Dr. Roswell Park ; IV. A case, by Dr. Eugene A. Smith ; V. Gunshot wound of forehead—localisation of bullet by Girdner's telephone bullet probe, trephined occipital region, bullet removed, demonstration of bullet probe, by Dr. William C. Phelps ; VI. Three cases by Dr. E. J. Myers.

Section on Medicine.—Tuesday evening, December 8th. Program : Care of delicate children, by Dr. — — Ross ; Feeding of children under five years of age, by Dr. DeLancey Rochester ; Serum diagnosis of typhoid fever, report on a series of fifty cases, by Dr. Frank H. Thornbury and Dr. A. H. Appell. A confirmatory report of Widal's serum diagnosis of typhoid fever, Dr. Julius Ullman and Dr. Albert E. Woehner. Report of an unusual clinical case, Dr. G. A. Himmelsbach.

Section on Pathology.—Tuesday evening, December 15th, program : Exhibition of gynecological specimens, by Dr. H. E. Hayd ; Perforation of the uterus, by Dr. Sidney A. Dunham ; Perforating ulcer of the intestine, by Dr. N. G. Russell ; Comparative anatomy of the cecum and appendix vermiformis in a dog, by A. T. Kerr, Jr.

Section on Obstetrics and Gynecology.—Tuesday evening, December 22d. Program : Uterine displacements : etiology and pathology, by Dr. M. A. Crockett ; Diagnosis and treatment, by Dr. Stephen Y. Howell.

THE TWELFTH INTERNATIONAL MEDICAL CONGRESS will be held at Moscow, Russia, August 19-26, 1897. The American national committee consists, according to the directions of the general com-

mittee, at Moscow, of the following-named gentlemen: J. S. Billings, M. D., New York; F. J. Shepherd, M. D., Montreal; Geo. B. Shattuck, M. D., Boston; W. S. Thayer, M. D., Baltimore; Geo. F. Shrady, M. D., New York; Frank P. Foster, M. D., New York; Charles A. L. Reed, M. D., Cincinnati; S. Weir Mitchell, M. D., Philadelphia; A. Jacobi, M. D., chairman, 110 West 34th street, New York.

The chairman begs to invite the attention of the medical profession of the United States and Canada to the fact that the professional gentlemen in charge of the congress are anxious to make it a success, both from a scientific and social point of view.

Their difficulties are unusually grave; but it is not their fault that the congress had to wait for governmental permission to meet in their country, or that a special ukase was required for the admission into Russia of Jewish medical men on equal terms with their Greek, Catholic, Protestant, Agnostic and Mohammedan colleagues, or that the famous and meritorious Secretary-General was—it appears because of his liberalism—ousted both from his place and from his professorship. They should not be held responsible for the political semi-barbarism of the country in which they live and to whose laws they have to submit. Their position in the world of science, and their endeavor to make the twelfth congress equal to its most famous predecessors, will prove an incentive to American physicians to sustain, both by their presence and their contributions, the Russian committee in its exertions to make the next congress equal to its predecessors.

Such information as may be received from time to time will be published in the medical journals immediately after its arrival.

THE Medical Society of the County of Erie will hold its seventy-sixth annual meeting Tuesday, January 12, 1897, at the rooms of the Buffalo Academy of Medicine, in the Market Arcade, under the presidency of Dr. J. G. Thompson, of Angola, N. Y. The president is desirous of giving considerable attention to the program which has been prepared for the occasion, and for that reason will open the proceedings promptly at 10 o'clock A. M. The papers to be presented are all of interest to the general practitioner of medicine, and free discussion is invited.

Dr. P. W. Van Peyma will read a paper on Albuminuria of pregnancy; Dr. F. W. Hinkel, will follow with one entitled, Earache, its significance and management; and finally Dr. Thomas

B. Carpenter will present the subject of Genito-urinary epithelium. A full attendance of members is respectfully urged by the officers.

THE Medical Society of the County of Chautauqua will hold its semi-annual meeting at the Hotel Columbia, Fredonia, N. Y., January 12, 1897, under the presidency of Dr. E. S. Rich, of Kennedy. The secretary, Dr. C. A. Ellis, has sent out the following program :

Appendicitis—1. Anatomy, paper, by Dr. N. E. Beardsley, Dunkirk. 2. Etiology, paper, by Dr. N. G. Richmond, Fredonia. 3. Symptoms and differential diagnosis, paper, by Dr. V. M. Griswold, Fredonia ; discussed by Drs. Wm. C. Duke, Cassadaga, and W. Stuart, Westfield. 4. Medicinal treatment, paper, by Dr. John C. Lewis, Panama ; discussed by Drs. G. E. Ellis, Brocton, and O. C. Shaw, Kennedy. 5. Surgical treatment, paper, by Dr. John Parmenter, University of Buffalo, Buffalo, N. Y. ; discussed by Drs. E. M. Scofield, Jamestown, and R. T. Rolph, Dunkirk. General discussion and report of cases.

A cordial invitation is extended to the profession of adjoining counties to attend and take part in all discussions.

THE Western Ophthalmological, Otological, Laryngological and Rhinological Association will meet at St. Louis, Mo., the second Thursday and Friday of April, 1897. Physicians desiring to read papers are invited to send subjects to the secretary, Dr. Hal Foster, Kansas City, at once. Railways will give one and one-third fares on the certificate plan. Programs will be issued February 1, 1897. The profession is cordially invited to attend.

Book Reviews.

A SYSTEM OF SURGERY. In Contributions by Twenty-five English Authors. Edited by FREDERICK TREVES, F. R. C. S., Surgeon to, and Lecturer on, Surgery at the London Hospital ; Examiner in Surgery at the University of Cambridge. Volume II. In one 8vo volume of 1,120 pages, with two colored plates and 487 illustrations. Philadelphia and New York : Lea Brothers & Co. 1896.

This, the second volume of Treves's Surgery, is in every way a fitting companion to the first volume, which was given to the profession several months ago. The subjects comprise the surgical

diseases and injuries of the muscular and osseous systems, the head and neck, chest and abdomen and the genito-urinary organs, male and female.

The chapters upon the injuries and diseases of the head, by Henry Percy Dean, are excellent. The subject matter, which shows large information and experience, is ably supplemented with illustrative figures, many of which are new. This is particularly true of that portion which deals with the various forms of fracture of the skull. The section upon abscess of the brain is a further illustration of the author's ability to put a great deal of information in few words. Another admirable but short chapter is that by Herbert W. Page upon Concussion of the spine. The author's remarks upon so-called "railway spine" deserve to be read by every practising physician and surgeon. We regret that space prevents at least a good abstract of this chapter, for in it can be found much wholesome advice and information upon a subject concerning which there seems to be many erroneous ideas, and certainly one will be taught through larger knowledge to get a fairer and juster view of the patient's side of the affair.

The chapter dealing with the surgical conditions occurring within the abdomen is perhaps the best in the volume. Here, in about 100 pages, the editor has given us the results of a large experience. The subject matter is arranged in a most orderly and systematic manner, which makes the information of easy access to the reader. From the operative point of view, the author will, in most if not in all instances, be found properly radical and conservative. For instance, he says: "An incision in perityphlitis is very seldom called for before the fifth day," and further on cautions against reckless and unnecessary incisions made during the first two or three days of the attack. Regarding relapsing perityphlitis, the best treatment for warding off a later attack is attention to the diet, the bowels and general mode of living of the patient. He even declares that a plate of false teeth has cured more than one case of relapsing perityphlitis. The section upon intestinal obstruction is a most instructive one. The chapter upon hernia is also by the editor, and is a condensed but complete presentation of this ever-interesting and important subject. We are surprised to see that the operation of McBurney is still mentioned in terms which would indicate that he (McBurney) still believed in and practised the operation, notwithstanding its public repudiation by him over two years ago.

Diseases of the breast receive consideration by W. Watson Cheyne, who contributes a thoroughly good article upon this subject. His views and therapeutic suggestions in carcinoma are thoroughly modern and can be safely followed to the advantage of the patient.

Henry Morris contributes two chapters upon genito-urinary diseases. They are characteristic of the author's work, which has such an international reputation as to need no further comment.

The publishers have kept up their general standard of excellence and given to the profession a work most acceptable in every way.

J. P.

PRACTICAL DIAGNOSIS. The Use of Symptoms in the Diagnosis of Disease. By HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Laureate of the Medical Society of London, of the Royal Academy in Belgium, etc. In one octavo volume of 566 pages, with 191 engravings and thirteen full-page colored plates. Philadelphia and New York: Lea Brothers & Co. 1896.

The author has seen fit in this work on diagnosis to depart radically from the old method of reaching a conclusion by wisely beginning at the bottom and building upward. Other treatises begin at the top and travel to the bottom, or, in other words, make the disease conform to the symptoms. Here the symptoms are studied with a view of reaching a diagnosis, and their application to determine the character of the disease follows. The treatise must necessarily be a very practical one, just such an one as a majority of physicians find they must consult. Especially in these days of new diseases, to which proper names have been applied, has a volume of this kind its greatest worth.

The chapters on the various symptoms of the diseases of the nervous system are unusually complete and interesting, and cannot fail to materially assist the physician who is somewhat unacquainted with these difficult affections. Many of the tables and illustrations in these chapters are taken from Dercum's system of nervous diseases, and are hence the latest and best information obtainable on these points. The chapter on the tongue is a valuable one, and the author belongs to that class who affirm that the diagnostic value of the tongue's appearance is worthy of study and consideration. Accompanying this chapter is a well-executed plate on the appearance of the tongue in typhoid fever, gastric catarrh and mucous disease.

The chapter on the general eye symptoms is a most important one, as these symptoms are generally noticed very early in the course of a disease and are very significant. Then follow chapters on the skin, the thorax and viscera, the abdomen and abdominal viscera, the blood-vessels and pulse, the blood, the urinary bladder and urine, and the bowels and feces.

Part II. is devoted to the manifestation of disease by symptoms and contains chapters on fever and subnormal temperatures, headache and vertigo, coma or unconsciousness, convulsions or general spasms, vomiting, regurgitation and the character of the vomit, cough and expectoration, pain, tendon reflexes and muscle tone and speech. The chapter on the blood is a very valuable exposition of one of the latest methods of diagnosis and is unusually complete. Special attention is paid to the appearance of the blood in leukemia, the malarial organisms in the blood and the

filaria. Three beautiful colored plates accompany this chapter and help greatly to elucidate the text. A prominent feature of the book, present in nearly every chapter, is tables of symptoms differentiating closely allied diseases from a clinical standpoint, but which are pathologically widely different.

On the whole, the work is a very valuable one to the busy practitioner, but, like all good things, should not be abused; that is, he should not stop with a study of the symptoms merely, but go further and ascertain the causes and the pathology of the disease in question. In conclusion we quote from the letter of transmission:

"The two indexes form an especially valuable and practical portion of the work. In the index of diseases under each heading will be found annotated references to the various symptoms which constitute its clinical picture. Conversely, the index of symptoms, organs and terms furnishes a ready-reference list of the various diseases in which any given symptom may appear as a feature. It would be difficult to conceive of a work of greater utility. In connection with it the same author's Practical Therapeutics may be most advantageously consulted for the most approved treatment."

W. C. K.

AN AMERICAN TEXT-BOOK OF PHYSIOLOGY. By Henry P. Bowditch, M. D., John G. Curtis, M. D., Henry H. Donaldson, Ph. D., W. H. Howell, Ph. D., M. D., Frederic S. Lee, Ph. D., Warren P. Lombard, M. D., Graham Lusk, Ph. D., W. T. Porter, M. D., Edward T. Reichert, M. D., and Henry Sewall, Ph. D., M. D. Edited by WILLIAM H. HOWELL, Ph. D., M. D., Professor of Physiology in the Johns Hopkins University, Baltimore, Md. Large octavo, pp. 1052. Illustrated. Price, cloth, \$6.00; sheepskin and half-morocco, \$7.00. For sale by subscription only. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

The general practitioner may be less familiar with the names of the foremost teachers of physiology of the day than with those of the leaders in other lines of medical work. The medical schools with which the contributors to this volume are associated show, however, their rank and authority. William H. Howell, Ph. D., the editor, is professor of physiology in Johns Hopkins University, and the Harvard Medical School, the Columbia University (College of Physicians and Surgeons), the University of Chicago, the University of Michigan, the Yale Medical School, the University of Pennsylvania and the University of Denver are represented in the contributors. The collaboration method has been tried successfully in other branches of medical science, and the writers give a demonstration of its advantages in handling the subject of physiology. As the preface ventures to hope, this method of treatment may prove to be the most attractive feature of the book.

The writers, for the most part, assume some knowledge of gross and microscopical anatomy on the part of the student, only introducing such descriptions as are needed to make clear the physiological question under discussion.

The chapters are signed, a feature which certainly adds to their interest. References, more or less full, to the literature of each topic are given, amounting in some cases to a complete bibliography. Those who wish to go deeper into the knowledge of a special subject will appreciate the plan.

Compared with the text-book of a decade or a hemi-decade ago, much that is new is seen; yet the physician who has read widely does not find here much with which he was not, at least in part, familiar. The volume sums up fairly the present state of our knowledge of physiology, and shows no less fairly the unknown territory of which our knowledge is but the borderland.

The section which the general practitioner will read with most profit is that on the central nervous system, while, as of old, the chapter on the special senses takes one into the fairyland of science. As a volume for the use of the average student of medicine, the book is too profound, a fault which reflects not on the work, and one which the steadily rising requirements for college entrance and training may overcome. The mechanical part of the book is excellent.

M. J. F.

A TREATISE OF APPENDICITIS. By JOHN B. DEAYER, M. D., Surgeon to the German Hospital, Philadelphia. Containing thirty-two full-page plates and other illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1896.

The rapidly increasing literature of appendicitis has lately been still further enriched by the work of Dr. Deaver now under consideration. The author states that he has been prompted to write this book by the belief that the importance of this disease entitles it to more thorough and exhaustive study than has heretofore been accorded it. It is well known that it is a disease capable of manifold symptoms and serious complications, demanding much versatility on the part of the surgeon, who must not only be familiar with its usual forms in which diagnosis is comparatively easy, but he must also be prepared to meet its varied and divers manifestations and its multiform complications.

Deaver states that he has endeavored to emphasise the etiology, symptomatology, and special technique in the operative treatment of appendicitis in this work, and that the observations contained in it are the results of an experience in the treatment of over 500 cases of the disease. Surely such a wide experience ought to enable a man to speak from the chair. He arranges the subject into the following divisions: History, anatomy, etiology, pathology, symptoms, diagnosis, differential diagnosis, prognosis, treatment, complications, sequelæ and after-treatment. It is a well-formulated plan, and considers the subject with heads arranged in a logical order of sequence. It is illustrated in an admirable manner, many of the plates being executed in colors, and their clearness serves to delineate many obscure points that have not heretofore been attempted by figures or drawings. These, for the most

part, are taken from cases, and this is uniformly the case where pathological demonstrations are made. One of the most useful parts that the illustrations serve is that connected with the operation itself. Never before has the surgical anatomy of the incision been so admirably shown by cuts, nor have the various conditions of the appendix *in situ* been so beautifully exhibited through the incision by artistic reproductions.

The book is printed on heavy paper in large modern-faced type, and its entire mechanical execution is beyond criticism. While we do not anticipate that this treatise will solve the entire problem of diagnosis and operative treatment of appendicitis, nor entirely fill the yawning gap that exists between a classic case and one of extreme complications, yet we do believe it will go a long way toward accomplishing its purpose in this regard, and, moreover, that it is a decided contribution to the literature of an essentially surgical disease, full of helpful hints and containing many novel suggestions that are useful in character.

THE PRACTICE OF MEDICINE. By HORATIO C. WOOD, A. M., M. D., Professor of Therapeutics and Clinical Professor of Nervous Diseases in the University of Pennsylvania, etc., and REGINALD H. FITZ, A. M., M. D., Hersey Professor of the Theory and Practice of Physic in Harvard University, etc. Octavo, pp. x.—1088 Philadelphia: J. B. Lippincott Co. London: 10 Henrietta street, Covent Garden. 1896.

No matter how many other treatises on the practice of medicine already exist, the fact that these two authors have combined in writing a new one will be welcome news to the medical profession. Since the work was announced it has been eagerly awaited by all who are familiar with the previous teachings and writings of the authors. Dr. Wood has made himself familiar to physicians all over the world in his chosen field of labor, as well as through his appearance on the rostrum at commencement and other anniversary occasions. Dr. Fitz is rapidly becoming as famous, and whenever he publishes an article it is eagerly read by a vast number of physicians throughout the country. We, therefore, feel sure that the treatise under consideration will not suffer for want of purchasers.

This work is divided into six sections. The first, devoted to general diseases, consists of five chapters, in which diseases of the blood and of the ductless glands, locomotor and constitutional diseases, infectious diseases, diseases due to animal parasites and poisonings are considered. In the second section, allotted to the consideration of diseases of the nervous system, we note seven chapters, divided as follows: general symptomatology; functional and nervous diseases; organic diseases of the brain and its membranes; diseases of the medulla oblongata; organic diseases of the spinal cord and its membranes; organic diseases of the nerves, vaso-motor and trophic diseases. In section third, assigned to the considera-

tion of diseases of the circulatory apparatus, are four chapters that subdivide the subject as follows—namely : diseases of the pericardium ; diseases of the heart and myocardium ; diseases of the endocardium ; and diseases of the arteries. Section four is set apart to the consideration of diseases of the respiratory apparatus. Here the story is told in three chapters under the following heads : diseases of the nose, larynx, trachea and bronchi ; diseases of the lungs ; diseases of the pleura and the mediastinum. Section five presents diseases of the digestive apparatus and of the peritoneum in five chapters : diseases of the mouth, pharynx and esophagus ; diseases of the stomach ; diseases of the intestine ; diseases of the liver, gall-bladder and bile ducts ; diseases of the pancreas and of the peritoneum. In section six we find diseases of the urinary apparatus handled in two chapters : the first considers diseases of the kidneys ; the second, cysts and tumors of the kidneys, and diseases of the renal pelvis and the bladder.

If we should attempt an analysis in detail of this valuable treatise it would occupy space enough to weary our readers, to say nothing of the reviewer himself. We have thought we could best serve those in interest by giving the foregoing synopsis of the contents of the work, which will enable the searcher to determine the comprehensiveness with which it seeks to occupy the field and also indicate the method in which the authors have prepared this new candidate for favor.

In an appendix some useful formulæ will be found, as well as a number of temperature charts. The book closes with a comprehensive three-column index that makes its text unusually accessible. The paper on which the book is printed is somewhat inferior in quality, though the type and presswork are excellent. The style of the authors is so concise that much more than ordinary ground is covered without increasing the usual number of pages allotted to similar works.

The student and young practitioner of medicine will find it one of the best arranged treatises yet offered, and we shall be very much mistaken if older physicians do not find it of sufficient interest to become extensive purchasers.

FOOD IN HEALTH AND DISEASE. By I. BURNEY YEO, M. D., F. R. C. P., Professor of Therapeutics in King's College, London. New (second) edition. In one 12mo volume of 592 pages, with four engravings. Cloth, \$2.50. Philadelphia and New York : Lea Brothers & Co., Publishers. 1896.

Since 1889, when the first edition of this work appeared, there have been several reprints in which no marked changes were made ; but in this edition it will be found that the author has endeavored to keep pace with advances and has brought it forward to embrace the conditions of the present. In doing so it has become necessary to make a number of changes and additions as well as to omit

some paragraphs or portions that were regarded as approaching obsolescence.

There is no questioning the fact that food is one of the most important agents in the management of disease, because problems of nutrition lay at the foundation of by far the largest proportion of diseases to which the human body is liable. This fact alone would make this treatise valuable to physicians, but coupled with the fact that Yeo is especially competent to deal with the subject, makes it a book doubly important to possess.

One of the most important questions connected with the food in disease is the fixation of the proper diet during convalescence. After exhaustive diseases like typhoid fever there comes a time of special danger from improper as well as over feeding. These matters are often left to the judgment of incompetent persons, hence frequently lead to dangerous relapse and sometimes fatal results. If physicians would study into the relationship of food to disease more closely, and especially mark out a fixed and determined dietary for convalescence, there would be more prompt recovery from many prolonged or wasting diseases. From this work of Yeo may be gleaned information that may lead to such a consummation. We should be glad if every physician would study it carefully and follow its teachings with precision. The book is handsomely printed and bound, and is of a size convenient for reference.

A MANUAL OF MATERIA MEDICA AND PHARMACOLOGY. Comprising all organic and inorganic drugs which are and have been official in the United States Pharmacopeia, together with important allied species and useful synthetics. For students of medicine, druggists, pharmacists and physicians. By DAVID M. R. CULBRETH, M. D., Professor of Botany, Materia Medica and Pharmacognosy in the Maryland College of Pharmacy, Baltimore. In one octavo volume of 812 pages, with 445 illustrations. Philadelphia and New York : Lea Brothers & Co., Publishers. 1896.

This treatise is a valuable addition to the literature of the subject which it considers. The author is a teacher of distinction, and embodies in its pages an experience of ten years in class instruction as well as that of twenty years in a drug store. It would, therefore, appear that he is familiar with the necessities of modern pharmacists. That he has demonstrated this through the method that he has adopted in preparing this treatise is clearly apparent upon examining the text. His style is not the smoothest, but it is forceful. He presents his subject under four general heads—first, all official drugs, organic and inorganic, included in our pharmacopeia, together with preparations, official and nonofficial; second, the drugs once official in previous editions in our pharmacopeia, but now dropped; third, allied specimens of organic drugs; fourth, important unofficial synthetic compounds. He has added a valuable part, in which he considers the microscope and its use in materia medica. In an appendix, poisons, with their

treatment and antidotes, are set forth. A comprehensive index concludes the volume. We commend the illustrations as being especially valuable; their number in this work is unusual, and their excellence is apparent on inspection. We regard this as one of the best of the recent treatises on materia medica and pharmacology, and one that ought to interest especially the student of pharmacy.

FUNCTIONAL DISORDERS OF THE NERVOUS SYSTEM IN WOMEN. By T. J. MCGILLICUDDY, A. M., M. D., Consulting Physician to the Italian Hospital, New York, etc., etc. Small 8vo, pp. 367. Illustrated. New York: William Wood & Co. 1896.

This author has undertaken a departure from the usual course and has presented us a new treatise, or rather has given us thoughts and ideas in a new form. Instead of being obliged to search through the several treatises on diseases of women, diseases of the nervous system, etc., we can now find in a single volume grouped the most important functional disorders of the nervous system in women.

The largest part of this work is devoted to the consideration of the several neuroses—reflex, cerebral, spinal, cardiac, vascular, gastric, intestinal, vesical, etc., etc., not forgetting, to be sure, the hystero-neuroses, which is a general term for neurotic conditions of the genital system. Chapters are added on hysteria, hystero-epilepsy, hemicrania, or migraine, and therapeutics. The work is handsomely illustrated with colored plates and wood engravings. It contains a bibliographical index and an appendix embracing ten charts and diagrams, which serve to assist in explaining the text, and are especially useful, too, in assisting to reach a correct diagnosis. We consider this book a decided addition to the literature of the diseases of women and one that will be welcome to both gynecologist and neurologist.

A PRACTICAL TREATISE ON MEDICAL DIAGNOSIS. For the use of students and practitioners. By JOHN H. MUSSER, M. D., Assistant Professor of Clinical Medicine, University of Pennsylvania, Philadelphia. New (second) edition, thoroughly revised. In one octavo volume of 925 pages, with 177 engravings and eleven full-page colored plates. Philadelphia and New York: Lea Brothers & Co. 1896.

That Musser's *Diagnosis* should have advanced to its second edition so soon is abundant proof of its popularity. The first edition was published in February, 1894, and became exhausted within less than two years. The importance of the subject with which this volume deals cannot be overestimated. Diagnosis is at the foundation of all successful treatment, and only a few authors have attempted this field. Da Costa has long been recognised as authority, and his treatise on diagnosis has been accepted as a text-book in most schools. With the appearance of Musser it became neces-

sary to divide the honors, as the latter's admirable treatise was recognised at once to possess exceptional merit.

This second edition has been revised in detail, so that it may be regarded as the latest exponent of the most scientific methods of diagnosis. Its illustrations are numerous and of excellent quality, although in this department we feel there is still room for improvement. The photograph might be made to play a more important part in this field than it has yet done. This author, however, has made great advances over others in this line, as well as in many of the departments treated of in his book. We can easily understand how *Musser's Diagnosis* will become a necessity for students as well as those who have entered the field of practice.

A VEST-POCKET MEDICAL DICTIONARY. Embracing those terms and abbreviations which are commonly found in the medical literature of the day, but excluding the names of drugs and of many special anatomical terms. By ALBERT H. BUCK, M. D., New York City. New York: William Wood & Co. 1896.

For the special convenience of students this little dictionary, prepared by an experienced author, has been issued by the publishers. The aim has been to offer a dictionary containing a large number of new words which have been introduced during the past few years, and to record the significant changes that have taken place in some of the old terms.

A somewhat cursory examination of this dictionary discloses the fact that it is particularly rich in the most recent terms and newly created words. Röntgen rays are especially clearly defined at sufficient length to meet the requirements of the average searcher for concise information in the subject. This work aims to give those words which one is apt to meet in books or papers on the newer topics of medicine as well as the standard terms used in modern text-books, a task which it seems to have planned and satisfactorily fulfilled. It is one of the most convenient of the small medical dictionaries, and its binding in flexible red morocco is handsome and durable.

A MANUAL OF VENEREAL DISEASES. By JAMES R. HAYDEN, M. D., Chief of Venereal Clinic, College of Physicians and Surgeons, New York; Professor of Genito-urinary and Venereal Diseases in the Medical Department of the University of Vermont, etc. In one 12mo volume of 263 pages, with forty-seven engravings. Philadelphia and New York: Lea Brothers & Co. 1896.

The literature of late on venereal diseases has become somewhat voluminous. Nevertheless, it is a subject that invites study and investigation at the hands of the best minds. So much confusion has grown out of want of proper understanding of the subject, and especially with reference to the differentiation of its several forms, that a clear, concise and accurate statement like this work is to be

welcomed. Hayden has had abundant opportunities to make himself familiar with his subject, and his manual discloses the fact that he methodised his work and studied it closely. Every point is presented with clearness and without superfluous language or unnecessary verbiage. In this manual will be found a clear and practical explanation and differentiation of the three venereal diseases—gonorrhea, chancroid and syphilis, together with their complications and sequelæ. We commend it to both students and practitioners as a valuable exposition of the subject.

THE READY REFERENCE HAND-BOOK OF DISEASES OF THE SKIN. By GEORGE THOMAS JACKSON, M. D., Professor of Dermatology, Woman's Medical College of the New York Infirmary and in the University of Vermont; Chief of Clinic and Instructor in Dermatology, College of Physicians and Surgeons, New York. New (second) edition. In one 12mo volume of 589 pages, with sixty-nine illustrations and a colored plate. Philadelphia: Lea Brothers & Co. 1896.

This is essentially a hand-book, as its title indicates. The first edition was well received and has become exhausted; hence the author avails himself of the opportunity created by the demand for a second edition to so completely revise his work as to bring it forward to the present period. New illustrations, too, have been added and the text has been markedly increased. It is a work adapted to the needs of students, general practitioners of medicine and specialists. Jackson is an author of recognised merit and his contributions to medical literature always command large and attentive audiences. We feel sure that this last one will prove no exception to the rule.

INDEX-CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, UNITED STATES ARMY. Authors and Subjects. Second series, Volume I. A—Azzurri. Washington: Government Printing Office. 1896.

This volume includes 6,346 author-titles, representing 6,127 volumes and 6,327 pamphlets. It also contains 7,884 subject-titles of separate books and pamphlets and 30,384 titles of articles in periodicals. It is prepared under the direction of Deputy Surgeon-General D. L. Huntington, who has succeeded Dr. John S. Billings in charge of the work.

REPORT OF THE COMMISSIONER OF EDUCATION FOR THE YEAR 1893-94. Volumes I. and II., pp. 2290. Washington: Government Printing Office. 1896.

As time advances, the reports emanating from the department of education become of constantly increasing interest. Public educators can scarcely get along without these annual issues as works of reference, and libraries should assuredly possess them.

The list of medical societies published on page 1632, *et seq.*, is quite defective and should be made complete in order to be valuable for reference. There is, however, much in this report of interest to the medical educator, and especially to those interested in advancing the standard of medical teaching.

BOOKS RECEIVED.

The Diseases of the Male Urethra. By R. W. Stewart, M. D., M. R. C. S., Surgeon to Mercy Hospital, Pittsburg, Pa. One volume of 229 pages, post-octavo, illustrated by numerous wood-engravings. Muslin, \$2.50; flexible morocco, \$3.25. New York: William Wood & Company. 1896.

Remsen's Theoretical Chemistry. New (fifth) edition. Principles of Theoretical Chemistry, with special reference to the constitution of chemical compounds. By Ira Remsen, M. D., Ph. D., Professor of Chemistry in the Johns Hopkins University, Baltimore. New (fifth) and thoroughly revised edition. In one royal 12mo volume of 328 pages. Cloth, \$2.00. Philadelphia and New York: Lea Brothers & Company, Publishers.

Diseases of the Stomach. A Text-Book for Practitioners and Students. By Max Einhorn, M. D., Instructor in Clinical Medicine at the New York Post-Graduate Medical School and Hospital; Visiting Physician to the German Dispensary. Pp. 496. New York: William Wood & Company. 1896.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology and Dermatology, and specially prepared articles on treatment. By professors and lecturers in the leading medical colleges of the United States, Germany, Austria, France, Great Britain and Canada. Edited by Judson Daland, M. D., (Univ. of Penna.) Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania; Assistant Physician to the Hospital of the University of Pennsylvania, etc.; Fellow of the College of Physicians of Philadelphia. J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician to, and Lecturer on, the Principles and Practice of Medicine at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary, etc. Volume III. Sixth series. 1896. Octavo, pp. xii.—344. Philadelphia: J. B. Lippincott Co. 1896.

Report of the Commissioner of Education for the Year 1894-95. Volume I. Containing Part I. Washington: Government Printing Office. 1896.

Annual Report of the State Board of Charities for the Year 1895. Transmitted to the legislature, March 25, 1896. Albany, N. Y.: Wynkoop Hallenbeck Crawford Company, State Printers. 1896.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland, Ninety-eighth Annual Session, held at Baltimore, Md., April, 1896, also Semi-Annual Session, held at Belair, Md., November, 1895,

and Special Memorial Meeting in Baltimore, December 14, 1895. Baltimore, Md.: The Deutsch Lithographing Company.

Transactions of the American Gynecological Society. Volume XXI. For the Year 1896. Philadelphia: Wm. J. Dornan, Printer. 1896.

Transactions of the Colorado State Medical Society, Twenty-sixth Annual Convention. By-Laws and List of Members. Denver, June, 1896. Published for the Society. Denver, Col. The Smith-Brooks Printing Company. 1896.

Literary Notes.

ANNALES D'OCULISTIQUE.—An English edition of this venerable ophthalmic journal was announced in January, 1895. Its direction here was undertaken by Dr. Geo. T. Stevens, of New York, and received cordial professional support. Issues of the journal were continued from January, 1895, to July, 1896, inclusive. The subscribers are now informed by Dr. Stevens that such interpretations have been put upon the agreement by the managers at Paris as to make unity of action and interest impossible, and he is compelled to discontinue its publication here.

It is greatly to be regretted that such an excellent journal cannot be made truly international and continued as such.

OPTHALMIC RECORD.—This journal, which has been published by Dr. G. C. Savage, of Nashville, Tenn., for five years past, has now been transferred to other hands, with headquarters at Chicago. It will be under the direction of an editorial board, of which Dr. T. A. Woodruff, of Chicago, will be editorial secretary. The size of the *Record* will be increased, and it will be otherwise improved. The first issue of the new series will be made early in January, 1897.

A USEFUL PUBLICATION.—Victor Koechl & Co., of New York, importers of valuable modern medicinal preparations, such as antipyrin, diphtheria antitoxin—"Behring," lanolin, dermatol, tuberculin and the like, are publishing a little monthly, entitled, *Therapeutic Progress*, devoted to brief reports and condensed abstracts pertaining to new remedies. Each issue contains something of practical interest to the physician. We have, during the past year,

received a number of copies of this little paper, and can vouch for its usefulness and also for the able manner in which it is edited.

Any physician who desires to keep informed in regard to the newer remedies can receive *Therapeutic Progress*, free of charge, during 1897, by addressing a request to Victor Koechl & Co., 79 Murray street, New York.

WE TAKE pleasure in calling attention to a very handsome pamphlet, presenting some practical and interesting facts regarding tongaline and the different troubles for which that remedy is intended — namely, rheumatism, neuralgia, nervous headache, grip, gout, sciatica and lumbago. The brochure is embellished with original drawings and also handsome photogravures of a number of eminent members of the medical profession, now deceased, which render it attractive. It is the aim of the publishers to mail a copy to every physician in the country, but any who fail to receive such, can obtain one by applying to the Mellier Drug Company, St. Louis, mentioning the *JOURNAL*.

THE Antikamnia Chemical Company, of St. Louis, is sending to a number of its friends a unique Christmas gift that is also a useful souvenir. It is a calendar illustrated with skeleton sketches reproduced from original water colors painted by Dr. Louis Crusius, a noted artist-physician of St. Louis. The letter of transmittal truthfully says that the facial expression so faithfully depicted is original from an artistic view, and the artist's skill in giving life expressions to the skull is truly wonderful.

The enterprise and liberality of the Antikamnia Chemical Company are well known, and we beg to acknowledge the receipt of this Christmas souvenir and to express our thanks for the courtesy.

THE *Medical Mirror*, of St. Louis, announces in its December edition that a new company has been formed, under the title Love-Hadley Publishing Company, that will hereafter print the *Mirror*. The accomplished editor, Dr. I. N. Love, will thus be relieved of much detail work, and be able to devote more time to his editorial duties. Perhaps we should say more leisure, because it is a well-known fact that the editor of the *Mirror* is not "a slave to time." We congratulate the *Mirror* on its prosperity and the wonderful strides it has made in establishing itself in the hearts of its readers as well as in the esteem of its subscribers and advertisers.

THE Columbia calendar for 1897, issued by the Pope Manufacturing Company, is one of the most useful desk calendars of which we have any knowledge. While we observe that one of its objects is to advertise the Columbia bicycles, it is by no means its only purpose. It teaches the joys of outdoor life and the comfort and economy of good roads, and on each day's slip is given in prose or verse many commentaries that are interesting and instructive. It is certainly one of the most useful and well-appointed desk calendars that is issued, copies of which can be obtained by sending five two-cent stamps to the Calendar Department, Pope Manufacturing Company, Hartford, Conn.

W. B. SAUNDERS, publisher, 925 Walnut street, Philadelphia, sent out at the close of the year 1896 a bulletin of his new publications for 1896-97. Accompanying it is a preliminary announcement and a few sample pages of Dr. Gould's new book on Anomalies and Curiosities of Medicine. It can be seen by the announcement that years of labor have been expended in collecting the material. It is stated that the authors have spent several years in the libraries of America and Europe in gathering the material for the book. It is announced that this book will be one of the most important works of the coming season and one sure to attract widespread attention.

Miscellany.

VISITING GRADUATE NURSES.—Misses Hollywood and Torrey, graduate nurses, announce that they will visit and care for patients at the following rates: One or two hours, 50 cents per hour; each additional hour, 25 cents; remain with patient twenty-four hours, \$3.00; remain with patient all day, twelve hours, \$2.00; remain with patient all night, twelve hours, \$2.50; prepare patient for surgical operation and assist, 50 cents per hour. *Obstetrical Cases*.—First six hours, or less, \$2.00; each additional hour, 25 cents; if detained twenty-four hours, \$5.00; care of patient and infant, two hours daily, \$1.00. Prepare remains for burial, \$5.00. Terms, strictly cash. Residence, "The Oxford," 432 Pearl street. Telephone, Tupper 613.

This kind of service may prove a great convenience to both physicians and patients in cases where it is inconvenient or unnecessary to have nurses for longer periods.

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Original Communications.

CLEANSING AND CLEANLINESS IN ABDOMINAL SURGEONS' OPERATIONS.

By LAWSON TAIT, M. D. New York and Albany (*honoris causa*),

L. R. C. P. Edin., etc.,

Birmingham, Eng.

A FEW DAYS AGO I read the detailed description of an operation for the removal of a bullet lodged in the brain, the operation being done by one of our best known European surgeons and a pronounced follower of the school of Lister. He first removed the dressing and exposed the scalp, which looked like a huge billiard ball, excepting for one ominous black spot where the bullet had bored its unkindly way. Then he took a scalpel which was dripping with antiseptic, a precaution which had not been taken with the foregoing bullet, and deftly incised the scalp, while almost all the time an assistant allowed a fine stream of warm water—sterilised by being boiled and allowed to cool to a safe temperature—to play from an irrigator upon the field of the operation; then instrument after instrument was used through the track of the wound, all evidently the subject of fear for they all dripped with antiseptics, while the locus of the infected bullet was left to the prey of the germs which had been carried there and had been working about for forty-eight hours before the operation.

The operator had not read Mr. Leedham Grieve's interesting papers on how difficult, if not impossible, it is to sterilise the hands of the operator, for he consistently made no attempt in the direction, and yet he closed the wound with a parcel of cotton wool feebly impregnated with corrosive sublimate. He then addressed his surroundings on the marvelous results obtained in modern times by antiseptic surgery. In the museum of the Royal College of Surgeons is a large iron bar, technically known as a pumper, which went under the influence of a charge of gunpowder from

below the chin of the user and straight upward through the head and out at the vertex, carrying into the wound a lot of germs and leaving them there. No sterilised water was used about the superficial wound and no corrosive sublimate was then employed (about the end of last century), yet the patient got well and remained so for years. The museums of this country and of others literally swarm with specimens which prove the receipt of serious cerebral injury with complete and permanent recovery, so that the belief now seemingly established in the minds of surgeons for the present moment, that a stream of sterilised water and a few grains of corrosive sublimate in the superficial dressings gives any greater security for recovery, has no foundation in fact, and is a mere temporary mental aberration.

Some few months ago I read a paper by the same surgeon that I have already quoted, on the subject of the influence of germs, and in the short space of a column and a half of an ordinary medical journal he used in thirteen instances such phrases as "it is now fully established," "it is beyond dispute," "it must be universally acknowledged," "Smith has proved," "Jones's remarkable observations have established," and "a complete result of Robinson's original researches we must believe," though in not a single instance would I, for one, admit anything in any one of the single assertions. It happens that those indicated as Smith, Jones and Robinson are three piquant contributors of papers on the application of the ever-advancing, ever-developing, ever-changing conclusions of the bacteriologists to the practical work of the surgeon, and such men, always anxious for second-hand novelties, forget in one week what they said the week before. In their writings it is an easy matter to picture in detail the extraordinary phases of the evolution of the practice and principle of Listerism, though it is only fair to say that I use Lister's name here with this qualification, that he, whilst the originator and still the chief advocate of the doctrines so various and so varying, is not responsible for more than about half the nonsense which has grown round the original antiseptic religion. There have been a large number of surgical "Pauls" who have freely disseminated perplexing epistles to the various surgical churches of the world, and thereby much and very acrimonious differences have arisen.

The antiseptic generation has now sped its cycle from 1866 to 1896, and we have come back to the figure of the clock at which we started. The time exactly embraces my own surgical life. In

Glasgow and in Edinburgh I saw patients die of the same terrible infliction, no matter what had happened to them. I saw removal of breasts die with a fatality which seemed to rival that of amputation at the middle of the thigh, and yet in my own practice during the cycle, out of many hundreds of cases of removal of breasts—how many I could not venture to guess—I think it pretty certain that the mortality has been a long way under 5 per cent., and probably has not been 1 per cent. ; in fact, I can call to mind only two fatal cases. The crowded wards, the deficient ventilation, the one solution dish and the one sponge in each ward, the want of ordinary lavatory cleanliness, were the causes of the terrible results. The carbolic oil, the putty and the lac plaster may have had some countervailing influence under the circumstances of these horrible old pest-houses, but in practice outside such influences they were useless. These details, together with others which ended finally in the harmonious logic of the spray, marked the first epoch of the antiseptic cycle, a time during which it was devoutly believed that every germ was potent for evil and every resting spore was a surgical frost. Every germ, every spore, every scrap of harmless dust must, therefore, be submitted to a process of destruction by some potent chemical agent. This chemical agent was constantly changed. As soon as one was contrived, adopted, beloaded and trusted, it was found by some new observers to be wanting when weighed in the chemical balance. The chemical manufacturers were nearly wild, and many of them were ruined by the continual changes, and the antiseptic market rate for years was something more variable than that of African gold shares.

When the spray was introduced, I was led, by circumstances altogether outside my own conviction, to range myself once more as a follower of the chemical antiseptic school, though I did not for a moment forget or neglect my old methods. I performed a hundred consecutive ovariectomies with a full and complete adoption of all the antiseptic precautions of the Listerian school of the period, and I published a paper in the Transactions of the Royal Medical and Chirurgical Society contrasting the details of that series with those of a consecutive hundred in immediate opposition to them, and the contrast was not in favor of the antiseptic practice.

By this time I had become thoroughly persuaded as to the future progress of the antiseptic doctrines and practice, and I expressed my prophecy, which I called an experiment, though it was more of

the nature of a satire. I went through all the ceremonious observances, with gradually diluted solutions, until I used nothing but boiled water, and then that was dispensed with. Finally, I used only ordinary tap water, and then I gave up the spray. This is precisely what has happened all round. The poisonous solutions were weakened bit by bit, the spray abandoned, with an expression of shame that it had ever been introduced ; rigorous hunting for germs was slackened and the antiseptic belief so modified that it was at last accepted that not every germ was hurtful, but only such as might yet be identified.

But, on the other side, we found the cubic space allowed to each patient rapidly increased, new hospitals were built and, above all, the segregation of surgical patients enormously advanced by the erection of cottage hospitals all over the country. For my own part, between 1878 and 1880, I secured an accommodation of about forty beds, for the most part the occupants of which had each a separate room ; in fact, practically they may be said to have all had separate rooms. The effect was at once apparent, for my mortality went down from about 30 per cent. to less than five, and I had long runs of fifty, sixty, eighty, and once as far as a hundred and forty-six consecutive operations without a death. Even hysterectomy, the most obstinate of all abdominal operations in yielding satisfactory results, has within the last ten years given me runs of thirty, forty and even forty-five consecutive successes. What are the explanations of all this ? The answer is, that though I cannot produce anything from which I can "absolutely prove" or "make it apparent beyond doubt," or anything of the cock-sure order, yet I can give basis conclusions which will be with difficulty upset, and those who neglect them will have to bear serious responsibility in the criticisms of the future.

The first conclusion at which I arrived concerning abdominal operations was, and it remains the strongest now, that the more the patients submitted to them are separated the better. For this purpose, and for the greater part of my practice, I adopted, as I have said, a room for each patient. Sometimes, with a press of work, I was tempted to "pack," as we used to call it, that is, put two patients in the same room, after the first six or seven days, but I had so frequently to regret this that I ultimately abandoned it.

I am quite sure that there is much truth in one conclusion I have often advanced, that time has much to do with what will happen in septic infection of an abdominal section. The fourth

night is the critical night with all save hysterectomies, and with them that period is not to be so definitely fixed. If an ovariectomy is all right on the fifth morning, the chances of her going wrong are small indeed. But if you "pack" them they will have hematoceles, stitch abscesses, pulmonary complications, mumps and all sorts of secondary troubles in a proportion far greater than if you keep them absolutely one in each room. These complications don't affect the mortality much, but they prolong the convalescence in a fashion of the most annoying kind. This has been still more impressed on me during the last three years, in which I have far more widely adopted the plan of operating in the houses of the patients and leaving the subsequent treatment of them to their private medical attendant. This is now possible, seeing that I sedulously avoid anything in the shape of gratuitous work; whereas for more than twenty years I did not get pay of any kind for more than one-fourth of my clientele, and not more than costs out of pocket for one-tenth of them. I am now, therefore, working solely in a class where it is possible to have all that is requisite in the way of accommodation in the houses of the patients, and after the operation is over I am seldom required to see the patients again, recoveries are so little interrupted. All this experience points out to me the extreme importance of segregation, and the uniform results of the work at the Sparkhill hospital, not in the hands of one man, but in the hands of all to whom it has been intrusted, prove this as far as proof in surgery can go; for segregation is carried out there almost as completely as it can be carried out in the best houses, whilst the perfection of the sanitary arrangements provided by the committee of management are almost absurd in their completeness of detail.

All this and the necessity for it was enforced on my mind coincident with the complete banishment of any fear of germs, either wholesale or individual, though there still remained with me the wholesome dread of certain specific poisons, the nature of which I do not know, and I think I may safely say that their nature is equally unknown to everybody else. First of all of these, as deadly beyond all things known to me, is the poison begot in the peritoneum and uterus of the puerperal woman and in some cases which have died after abdominal section.

This brings me to speak of the third phase of the slowly developing Listerism or antiseptic doctrines of surgery where it had begun to call itself aseptic and to adopt some of the minor

doctrines and practices which I have been preaching and practising since 1881. All that I have been saying up till now leads me to that condition which, after segregation, constitutes my second general condition essential for success in abdominal surgery and going a long way to explain our modern success. I mean cleanliness.

Cleanliness in surgery may be divided into general and specific. General cleanliness, such as close attention to cleaning wards and all in them, the cleanliness of all linen bedclothing, etc., and the personal cleanliness of the surgeon and the members of his staff, are matters I need not waste time over. The details of specific cleanliness are matters much more in need of discussion.

For a long time in the earlier part of my practice, I allowed all properly introduced and qualified practitioners to visit it, and they came in great numbers, chiefly from America, but I soon had to stop this kind of hospitality and to limit admission to such as came as serious-minded students prepared to see and understand what they saw. The reason for this was simple: the "globe-trotter" came and saw one or two operations and departed without understanding anything he had seen and, if he published, he perversely misrepresented the facts. To this misrepresentation is due two misstatements which even now appear at intervals in the medical journals of the continent and America. The first is that I really am a devoted disciple of the chemical germ destroyer school, but that I have some substance in use which I will not disclose. The second is that my secret is "water sterilised by boiling" and this ridiculous blunder recurred only a few months ago at one of the great congresses of America and, strange to say, from the mouth of one of my old pupils, Dr. Ricketts, of Cincinnati, who spent six months with me some years ago.

It is now fourteen years since I have used sterilised water for any purpose save to raise common tap water to the temperature required, so that the mixture would be probably five parts common tap or well water and one part water which had been boiled and possibly sterilised. The mixture would have a temperature of about 102° , for my hands will not stand much more with comfort. I have yet to learn that such a mixture deserves the name of "sterilised."

My attention to specific cleanliness is as close as can be given. It may be divided in between the instruments and hands of the operator and the abdomen of the patient.

I hail with great satisfaction all the wonderful inventions and devices of the modern operating theatre for securing cleanliness, for that cleanliness can be secured only by the work of women, and women in themselves have not the slightest idea of cleanliness save on the surface and unless they belong to the really well-educated classes. This is a fact which no one knows so well as he who has gone through the filthy drudgery of a gynecological out-patient department, where fifteen out of sixteen of the patients have lice or fleas upon them, and often both. This is the material from which the great bulk of the so-called trained nurses are obtained, and with their training, unless most especially well looked after, they alter their habits only in the sense of the smart cap and attractive uniform. They remain as dirty as ever, and it is therefore necessary to give them shelves and boxes of plate glass.

All instruments with sliding tubes, screw or Clendon joints ought to be abandoned, every joint should be capable of being unshipped, and after every operation every instrument used should be scrubbed with raw turpentine and a brush and then well washed with soap and water ; if this is done, simple immersion in cold tap water at the next operation is all that is wanted.

Sponges—ah ! they want a paper to themselves. They are, and ought to be, the terror of the operating surgeon, and I can't stay now to say what I have to say about them, save that new sponges are bad, old sponges dangerous, and that none of them should ever be boiled. The Americans will have it that I boil my sponges, but I never did such a thing but once, and that ruined the lot.

Now I come to the real subject-matter of my paper—the cleanliness and cleansing of the patients.

I see that a number of superstitious observances on this subject are still recommended, such as the application of an antiseptic pad to the abdominal wall for twenty-four hours before the operation, and the like.

I have never employed any such plans, being quite content with a soap and water washing of the skin to remove the dead fat and epithelium with which women are always coated and generally thickly. If there were any real poison in the skin no antiseptic pad would remove it in twenty-four hours. The real poisons known to me as absolute realities, those which I have spoken of as occurring in puerperal peritonitis, cannot be removed by any known germicide from the hands of the surgeon infected by them. Mr.

Leedham Grieves's experiments seem to show that it is impossible to cleanse the hands from the ordinary spores of decomposition, and yet we know that nowhere is epithelium reproduced and shed at so rapid a rate as it is on the hand. My knowledge of the terribly infective power of the puerperal poison, from my own experience and that of others, has been so emphatic and the lesson so disastrous, that I am persuaded that the poison, whatever it be, permeates at least the whole epithelial layer and cannot be got rid of save by efflux of time and skin, and that it is not safe for anyone so infected to operate till at least a fortnight or three weeks have elapsed. Have there not been lessons enough in the same direction by the spread of puerperal fever from the hands of the accoucheur ?

I am not alarmed by the conclusions to which Mr. Leedham Grieves's observations point, for I don't fear the ordinary germ poison at all. But still I take the precaution of keeping my nails short and clean and of washing my hands in raw turpentine the last thing before performing any operation, and then washing off the turpentine by ordinary soap and water. My reason for this may be seen in the simple experiment of washing the hands three or four times in the ordinary way and then in perfectly fresh water, repeating the process with the previous addition of turpentine. After this last water has stood for a few minutes there will be seen on its surface evidence of dirt of a very convincing kind. That dirt must be either in the clear turpentine or it must be a layer of dirt removed from the hands by the turpentine after having resisted the previous efforts with soap only. The latter conclusion is that accepted by me, and it accounts for my using turpentine to the patient's skin and my own, as well as to my assistant's in the rare cases where I need one.

All the other details of every operation performed by me are conducted, as I have said, by the use of plain cold water, taken immediately from the tap or well and raised when necessary to the desired temperature by the addition of the water from the kettle or boiler ; nothing whatever is added to that water for instruments or sponges.

The final cleansing, and I think by far the most important of the lot, is the cleansing of the abdominal cavity during and after operations.

INFLAMMATORY DISEASE OF THE PROSTATE AND ITS APPENDAGES.¹

BY J. HENRY DOWD, M. D., Buffalo, N. Y.

OF ALL chronic trouble to which mankind is heir, I think, for worry, pain and inconvenience, disease of the prostate and its appendages should rank first. Bangs says, "A man with prostatitis is in a plight," and, I might add, is generally ready for a fight.

Prostatic disease in old men is readily recognised on account of the interference with urination. On the other hand, when occurring in young or middle-aged, as I will later describe, it is, in my opinion, rarely recognised, and simply because, instead of abnormal urination, the symptoms are mostly confined to the sexual function, urethral discharge and pronounced neurasthenia. The function of the prostate, as you all know, is to secrete a fluid for dilution of the semen, it also helping to fill the posterior urethra, thus causing contraction of the perineal muscles, aiding in its ready expulsion. It is slightly acid in reaction. There is one more important use of this fluid, which brings it forward as part of the sexual apparatus. The spermatozoa, until they become mixed with the prostatic fluid, are motionless. This has been demonstrated by Fuerbringer, and I have proved the above to be true many times.

The prostate, when perfectly healthy and in an adult of medium build, is about the size of a horse-chestnut, firm and tense, having two well-defined lobes, forming above, where they meet a depression. In this space internally is found tissue, rich in glands, which sometimes in advanced life undergoes pathologic changes, becoming hypertrophied, and thus causing what is called a third lobe. The structure is about evenly divided between muscular and glandular tissue.

We today recognise two varieties of prostatitis. One, where the symptoms commenced at or before forty, is gonorrheal in origin. The other, commencing at or after fifty, is an overgrowth, and is not supposed to be gonorrheal. There are also two forms. The first, a chronic inflammation of the follicles and glandular elements. The second, an overgrowth or hypertrophy of glandular and muscular tissue. I do not believe the gland is ever affected *per se*. The inflammation always, to a certain extent,

1. Read at the Surgical Section, Buffalo Academy of Medicine, November 5, 1896.

attacks the caput gallinaginis, ejaculatory ducts, seminal vesicles, or intraseminal vesicular space. Therefore I think it justifiable to follow the gynecologist in his description of inflammatory diseases of the uterus, and the like, only to say, inflammation of the prostate and its appendages.

Etiology.—This we must divide into two varieties,—predisposing and exciting; and I am thoroughly convinced that were not the exciting cause added, except in a limited number of cases, we should be called upon to treat but very few cases of prostatitis occurring before the forty-eighth or fiftieth year. The fire is kindled, and all that is necessary is a match to start it blazing. Or, to be more explicit, there is congestion of the gland, posterior urethra, and the like, due to early indiscretions. Later, a germ, gonococcus by name, is introduced, and upon this fertile soil inflammation with all its ravaging symptoms sets in. Cases do exist in which it is impossible to get a history of gonorrhea; and, not being a general bacteriologist, I will not venture to say the germ which is the excitant. I believe, though, it is laid at the door of the *bacillus coli communis*. The predisposing causes are many and commence at puberty. I will not take your time further than to say, with erection occurs congestion of the whole genital tract. Erection is under control of the mind, and I am sorry to say, in young boys and men, the mind is centered on the sexual apparatus a considerable of the time. Let the teacher be association or a perverted mind, the young man or boy soon learns to practise masturbation. He has a delightful feeling,—it is free from expense,—he is over-sure of not contracting disease, and it can be done in private. Therefore this life is continued for sometimes years, or until by chance he receives a book from some charlatan portraying lost manhood, insanity, and the like. He then stops this practice, pollutions occur, sometimes weekly, sometimes nightly, and even spermatorrhea develops. Now we have a good case of neurasthenia; not by a pathologic condition of the mind, but due to a more or less chronic congestion of the posterior urethra and its appendages, combined with an exalted condition of the genital nervous apparatus. He may commence a life of masturbation and be suddenly checked therein by being caught in the act, shamed or scared. Or he may by chance have the above literature thrust upon him. He discontinues the practice and seeks the company of young ladies. But every time he comes close to them, and especially do they tolerate caressing, an erection occurs, and sometimes for hours

the genital organs are in a state of rigidity. Lewd pictures will excite him. In fact, a woman coasting on a bicycle will cause an erection. Thus you will see that the blood-vessels are over-distended nearly all the time, and permanent congestion must and surely does occur. To a certain extent, excess in sexual intercourse will cause the same condition of affairs. *

Now comes the great question of bicycling. It is impossible to examine a prostate and say to what extent it is enlarged, unless the enlargement is quite marked, for we must take into consideration the muscular development of the person, his proportion, and the like. But, from an extensive acquaintance, nearly every one of which uses a bicycle, I have tried to formulate an opinion, not so much by examination of the glands, but by questions referable to the sexual apparatus, perineum, rectum and nervous system. My conclusions are, in a person giving no history to any extent of masturbation, never having had gonorrhea, syphilis, rheumatism or gout, and no history of injury to the perineum, from the bicycle, with a well-adjusted, open-center saddle, no permanent injury will develop. But, on the other hand, where I have found any of the above conditions present, especially gonorrhea, complicated by cystitis, posterior urethritis, deep stricture and rheumatism, I have found pronounced symptoms of neurasthenia, having their cause situated in the posterior urethra. And I have even seen cases prostrated by long rides, as the following will show :

On June 1, 1896, a wholesale liquor dealer consulted me, giving the following history : Aged 26 ; always bothered with rheumatism ; masturbated when young ; had gonorrhea fourteen months ago, apparent cure in four weeks. About six months ago, noticed a drop at meatus after urinating, looking like glycerine, and very sticky. This was not continuous, but especially after riding bicycle. Urine clean, except a few small comma-like plugs. Passes water about normally in day, and not at night ; stream is delayed in starting ; a slight dripping after completion ; no stricture. Prostate slightly enlarged and flabby ; urethra, by endoscope, nearly normal ; only one or two slightly congested spots, by use of large sound. Cold rectal psychrophore, rectal suppositories of iodide of potassium and extract belladonna, with special instructions not to ride machine over two miles a day, and then slowly. All symptoms rapidly disappeared until July 28th, when I was called to his house and found him with tenesmus of bladder at neck, urinating every ten minutes, or as soon as urine accumulated sufficiently to touch the irritated prostatic mucous membrane. Severe pains at end of micturition, and, in fact, all symptoms of acute prostatic enlargement, due

to intense congestion or inflammation, but not of a severity to cause entire obstruction. The first question was, "Have you been riding lately?" "Yes. Yesterday I took a twenty-five mile ride, perspired freely, was very tired when I returned, and took two glasses of beer."

Can anyone doubt the bicycle was the cause of this condition? What do you think will be the condition of this man's prostate at 48 or 50?

I was told, the other day, of a doctor who had seen three or four cases of impotence, due to bicycle riding. I think that these cases would give a history of extensive masturbation, specific posterior urethritis, syphilis or deep stricture. Therefore it is my opinion that we should caution young or even old men against excessive use or fast riding, when a history of any of the above conditions presents itself.

The exciting cause, as I have already said, is always a germ, this being in a large number of cases the gonococcus. It is a well-known fact that in about 35 per cent. of all cases of gonorrhea the posterior urethra becomes affected, and usually about the second week. Now it does not necessarily follow that the prostate becomes involved in every case. But upon the treatment the balance hangs. The etiology of prostatic hypertrophy, where there is an overgrowth of the muscular, fibrous and glandular elements, is yet an unsettled question. In almost all cases a history of gonorrhea and stricture, with urethral instrumentation, can be elicited. Is it not possible that the patient may have had a posterior urethritis at some time, which did not present symptoms sufficient to call his attention to it, and an involvement of the gland took place early?

Symptomatology.—These vary according to the parts affected. First, let us take a hyperesthesia of the posterior urethra, due to masturbation. The most prominent symptoms will be nocturnal pollutions. The patient will tell you that on awaking in the morning he has headache, backache and feels languid during the day; penis is cold and shriveled. He thinks people avoid him, and he avoids them, especially the society of young ladies. He imagines everyone who looks at him knows he has practised self-abuse. He really does look anemic, hollow-eyed and sheepish. When talking to them they hang their head, as though ashamed to look you in the eye. If you look at the urine it will be found turbid, this being due to an excess of phosphates. I advise you to make no explanations, or they will soon imagine their brains

are running out through their kidneys. Unless help is sought the condition becomes aggravated, diurnal pollutions set in, and occasionally true spermatorrhea. Now you have on your hands a case which would present the most aggravated symptoms of neurasthenia. The symptoms of this condition are similar to those already mentioned, only increased ten-fold. They see or feel one or several drops of whitish material several times daily, especially after defecation or the least sexual thought. They imagine people point at them on the street, describing their condition. The pains already referred to are intensely aggravated, and they imagine it is only a matter of time before they will be in a mad-house, as they are surely losing their mind. To cap the climax, they attempt sexual intercourse. It is impossible to produce an erection, or they ejaculate before entrance. They now become melancholy, and either do become an inmate of an asylum or have suicidal thoughts. Supposing they do effect an entrance and contract a gonorrhea. Almost at once the posterior urethra becomes involved with all its symptoms plus those of gonorrhea.

I consider it unnecessary to here repeat the symptoms of acute posterior urethritis. I cannot see how this condition can be mistaken or overlooked. If the perineal symptoms do not call your attention to the condition, a visual examination of the urine will certainly do so; and an examination of the urine should be made every time you see a person, man or woman, who is suffering from urethral or bladder trouble. After the acute pain, and the like, has subsided, and there only remains the familiar drop in the morning, with tripper faden, possibly only in the first glass, emissions will be more frequent, and sometimes accompanied by a dart of pain at the end, or even the seminal discharge may be slightly bloody, showing the ejaculatory ducts have been involved. Involvement of these ducts will also cause the patient to complain of neuralgic pains in the testicles, back and groin, growing more severe as the chronicity and upward involvement take place. I might say here, that in this condition, the caput nearly always suffers. After this condition is well established, the whole life of the man seems to change. He becomes irritable to a high degree, domineering, is never satisfied with existing conditions, seeming to want to argue with everyone with whom he has any dealings. Erection can easily be produced, or as a man once described to me, "half-hearted" erections. Ejaculation takes place either before or almost immediately after entrance, and it is sometimes hours before

another can be produced, when it will take a long time, and sometimes it is impossible to have an emission. If the patient is unmarried he worries as to the fulfillment of sexual calls when married; or if married is afraid his wife may imagine him untrue. In most of the cases the pleasure is benumbed or entirely absent—especially is this the case when there is a sharp dart of pain following ejaculation. They go from one physician to another, never acknowledge any improvement and, in fact, make not only their own but the lives of everyone miserable. Sooner or later they complain of tenesmus at the end of micturition and if questioned carefully will say, “Yes, a drop or so of a something like glycerine follows the stream of urine.” This is positive evidence of but one condition—involvement of the prostate gland.

Samples of urine will become both more turbid and be filled with comma-like plugs from the prostatic follicle. The stream of urine is slow in starting and followed by several drops which will be deposited generally in their trousers. Following this is the glycerine-like fluid, sometimes tinged with blood. Urination is more frequent, possibly having to get up once at night. It is not a condition of impressible urination, but rather urgent. As soon as the urine attains a certain height in the bladder, so as to allow it to enter the posterior urethra, an urgent desire at once seizes the patient. Although he can often hold off for ten or fifteen minutes, it takes concentrated thought to do so. Tenesmus is a well-marked symptom, always following urination. A fulness with shooting pains in the perineum, legs and back. When the bowels move they imagine something is slightly obstructing the passage, and this is sometimes accompanied by pain, which is very severe. In fact, one case is reported where a patient was treated for piles a year who had chronic prostatitis. Happily for the patient his condition is discovered and a treatment applied. Otherwise a condition may develop which I can best describe by the history of a case.

Aged 36, married now. Masturbated to excess when young, followed by emissions on an average of every second or third night for years. Gonorrhea in 1885, second attack in 1888; developed strictures which were cut by a surgeon of this city. Now complains of pains above the pubes, in back, hips and thighs, aggravated on walking, fast running or riding over rough roads. Fulness and pain in the perineum, shooting into the testicles. Severe pains on defecation. Erections cause the most excruciating pains. Urinates five or six times daily and

once at night. It takes fully ten seconds for stream to start, and it is followed by dribbling and glary discharge, at one time bloody. Pain following emissions, and, in his own words, "Sexual intercourse makes me sick for a week. There is no pleasure. In fact, it is a torture, so I seldom practise it."

Examination revealed one lobe of the prostate enlarged to one-half times its fellow, which is also large. The sound No. 30 F. causes severe pain on entering the posterior urethra. This can be considered a typical picture of chronic prostatitis before the age of 36, of gonorrheal origin.

Involvement of seminal vesicles has a train of symptoms similar to those of posterior urethritis, only that the patient may at times after defecation notice a thick, tenacious discharge; this being due to hardened feces, pressing or rather stripping the enlarged pouches. These people have a history of gonorrhea. If they are married they will not be able to impregnate their wives; this being due to the accumulated pus killing the spermatozoa. At present I have a case whose right vesicle is enormously enlarged, due to a gonorrhea, who wants to know why it was before he had it he impregnated his wife, but since, nine years, has not been able to get her so, although both are perfectly healthy and he is strong and robust. I found the spermatozoa after repeated examinations to be motionless and shriveled.

They cannot tell where they feel badly, having no symptoms referable to the located disease, but are very nervous, with neuralgic pains in different parts of the body; a sudden fright makes them irritable for days; fits of melancholy supervene, when for hours or a day they will not speak unless to answer questions. After making a diagnosis of chronic vesiculitis I asked a patient for symptoms and was told, "I feel as though a veil were hanging over my face or brain. I don't seem to comprehend a situation or condition until some time has elapsed."

It is advisable in all cases where the posterior urethra has been involved in gonorrhea to examine the seminal vesicles. On the first examination it may be difficult to locate them, but with a little practice it is as easy as for the gynecologist to examine a woman and say she has a right or left enlarged tube, as the case may be.

If these conditions be due to tuberculosis the symptoms will be materially the same, excepting by digital examination, nodules will be found in the prostate, vesicles and vas deferens. And it is

always well to examine the epididymis, for in a majority of cases one or both are involved.

The symptoms of chronic prostatitis commencing after the 45th year, it seems to me, are so well known that it is idle to repeat them. Suffice it to say, delay in starting the stream, dribbling afterward, having to arise to urinate at night, ammoniacal urine, exacerbations of cystitis three or four times a year, if stricture is excluded, generally point it or should cause the prostate gland to be examined.

Treatment.—I know of no condition in medicine or surgery which will respond more slowly to treatment than any of the conditions already described. In fact, cases at times will grow worse, even under the most appropriate remedies and applications. Each case must be studied individually and a thorough knowledge of its constitutional conditions noted. In nearly all, anemia will present itself. This should be combated with iron and tonics. Gastro-intestinal disturbances should be inquired into and treated accordingly.

Daily morning cold baths for a flabby condition of the muscular system, a change of climate and if tuberculosis is present, the best environment possible, with regular hours for sleep and meals highly nutritious, and in all conditions the cause must be found and removed.

In the first condition, nocturnal emissions, as heretofore stated, the cause is a hyperemic posterior urethra, with an exalted condition of the nervous, especially the genital nervous, apparatus.

Good advice with strict hygiene is all-important. Explain to the patient the pathological condition, that there is no trouble in the brain, that he will surely get well if persistent in treatment, and when he does recover, if unmarried, advise marriage and a strict sexual life.

Invariably emissions occur in the early morning, from 4 to 5 o'clock. The bladder is now full and as in the recumbent position there is a congested condition of the genital tract, it can easily be seen how a full bladder pressing on the vesicles will cause their overflow. Caution against drinking any fluid after 6 or 7 P. M. Evacuate the bladder before retiring, and in certain cases I advise arising at say 4 A. M. and urinating. When this has been done no emission has taken place. The bed should be moderately hard and a lateral position maintained while asleep,—this to avoid the condition already mentioned. Sometimes it may be necessary to

advise a ring to be worn to prevent erections. For the patient's general condition a tonic is usually necessary. If in the urine we find phosphaturia, compound syrup of hypophosphates, containing 1.16 gr. strychnine to each dose, is admirable. In nearly all conditions it will be found necessary to give sedatives. No better drugs can be used than bromides, gelsemium and valerian morning and afternoon and a double dose at bedtime. The all-important remedy is pressure, and this can only be applied by the use of full-sized sounds, which should be passed every other day and left in for ten minutes or so. My plan is to pass a full-sized sound every other day, and on the second day to deposit a few drops of a 3 to 5 per cent. solution of silver in lanoline on the prostatic mucous membrane. In using silver in the posterior urethra, the fact must not be lost sight of that to commence with strong solutions is to do more injury than can be repaired by several treatments. Therefore, it is wise to commence applications by weak instillations or probably better still by irrigations, which will be described later. On the fourth day after removal of the sound, use the urethral psycrophore, running one or two gallons of ice water through the same. Electricity and canterization of the ejaculatory ducts has been advised. With these measures I have had no experience.

Should specific posterior urethritis occur in connection with the before-mentioned condition, it is very advisable to cease active treatment, only combating the severe symptoms until the acute inflammation subsides. Now, with the irrigating catheter, medicate the diseased mucous membrane until the urine shows by its absence of pus shreds and comma-like plugs that only the old aggravated condition remains. If irrigation is practised every one, two or three days, according to the irritation produced, the case will be ready for its former treatment in the course of ten or twelve days.

Purposely I omitted the symptomatology of acute prostatitis. If this condition occurs during an acute or sub-acute attack of gonorrhea I do not see how it can be mistaken. The perineum close to the anus should at once be shaven and five or six leeches applied. When they fall off, the patient should be placed immediately in a sitz bath, and in the course of a few minutes the urine will flow from the urethra; or should retention not occur, the cold rectal psycrophore morning and evening will quickly reduce the swelling. Ice water must be used. To keep the good work of resolution going on, suppositories of ichthyol and belladonna should

be inserted in the rectum at night. The gland will generally recover its normal size, although sometimes atrophy takes place.

The condition, early chronic prostatitis, may easily be regarded as the worst complication of gonorrhea. As already mentioned, when this condition is allowed to progress untreated there is generally but one ending—a miserable existence from about the thirty-fifth year until death closes the scene.

It is my candid opinion that when once this gland becomes invaded by a specific inflammation, unless it is recognised and treated at once, it never again becomes normal. Even though a pathologic involvement be discovered at once, time only will bring about resolution. It may be weeks, months or even a year before improvement will be manifest, and in some cases improvement never occurs.

This condition, as I have heretofore mentioned, differs from the chronic of old age and in being inflammatory; the other is hypertrophy or overgrowth. Therefore, the treatment resolves itself into one of promoting resolution and aiding absorption. The first condition is met by pressure. The Oberlander prostatic dilator is admirably adapted to this work or the largest possible sound, according to the measurement of the flaccid penile organ. But, caution: never pass a sound into the urethra while the urine contains pus or mucus visible to the naked eye! Should the meatus be small it should be divided. Should the case be recent, cold water, and by this I mean ice water, one or two gallons, should be passed through the urethral or rectal psycrophore. In a more chronic condition, water as hot as possible with the rectal instrument; but as the urethral psycrophore being metal becomes overheated this must be dispensed with. Irrigations by catheter, carried just inside the compressor muscle, give most gratifying results. Solutions of silver, 1 to 10,000, increased gradually to 1 to 300, or even 1 to 200, should be used. For absorption of the inflammatory material, I have had most excellent results with pot. iod. internally and locally, in both urethra and rectum, gr. 1½ t. i. d. I grant this will not show its work, as in a case of syphilis, but if continued its good effects will be noticed. For the rectum I use pot. iod. and belladonna, or ichthyol, in the form of suppositories, inserting one after the use of the psycrophore. In the urethra an ointment of pot. iod. and iodine in glycerine and lanoline should be deposited over the caput gallinaginis with my ointment syringe, drops ten of the above, equaling about gr. 2 pot.

iod. and iodine gr. 1-16. The openings being on the side, as the ointment is pressed from the beak it adheres to the prostatic mucous membrane. Now on withdrawal of the instrument the gland closes together, thus pressing it into the follicle, where it remains sometimes for thirty-six hours, thus exerting a local effect unattainable by any other method. Care should be taken not to lubricate the instrument with vaseline or oil, as it forms a coating to the mucous membrane, rendering the tissues impermeable. Blistering the perineum is a valuable adjunct if your patient can stand it. The general condition should receive attention, anemia, rheumatism, gout or syphilis being treated if present.

Vesiculitis.—Although I have not said anything as to the symptoms of the acute condition, I think rectal pain and the like, during an acute attack of gonorrhea will call your attention to an examination of these organs. Rest in bed should be insisted upon, relieving the acute pains and tenesmus by suppositories of opium and hyoscyamus, and as soon as possible use the rectal psycrophore with ice water. Should the condition become chronic the best results can be obtained by tonics, *i. e.*, syrup ferri iod. rectal psycrophore, using water as hot as can be borne every second day; and on every sixth or seventh day by stripping the vesicles according to Eugene Fuller's method. A change of climate is advocated and should be insisted upon in certain cases.

Chronic prostatitis, hypertrophy of the prostate, occurring in advanced life, when well established, seems to have but one tendency—from bad to worse until life becomes a burden. In this one condition to teach the layman antisepsis is time well spent. I acknowledge we here meet two classes of men—one that listens carefully and notes every word of advice, that appears at our office as we consider necessary, and carries out our instructions to the letter. The other will come when he has a cystitis, incontinency or distressing symptoms, and when free from the above has no use for the doctor or his advice.

About the first symptom calling our attention to prostatic trouble, providing there is no history of stricture, will be frequency of urination or an attack of cystitis. This condition is due to an irritating urine touching the oversensitive prostate or bladder mucous membrane and is caused by the bladder never thoroughly emptying itself. For, as the prostate increases in size, a pocket is formed on the posterior wall of the bladder. Sometimes diverticula exist. The bar at the neck, although in no way

a part of the prostate when it is present, is an important factor to the prevention of free evacuation, thus allowing decomposition to take place in the residual urine. Certain fermentative germs acting on urea cause a formation of carbonate of ammonia and we have putrid alkaline urine. This can be obviated to a great extent by the position of the patient in passing urine and keeping the bladder free from residual urine and clean. Patients should be instructed to pass the first urine in the morning while lying upon the abdomen, slightly raising the latter to an oblique position. At least once and possibly twice a week a catheter, Nelaton's, if possible, should be passed after urination to ascertain if any residual urine remains. If any, this should be removed (up to two ounces; to go beyond this limit, although not always, is sometimes dangerous). This done, the bladder should be thoroughly washed with a sat. sol. boracic acid, taking care that no solid particles are introduced. Should we find the bladder each time to contain an extra amount of residual urine it is advisable to instruct the patient as to antisepsis and have him pass a catheter daily. For if urine is allowed to remain in the bladder, sooner or later there will be decomposition and trouble. If a mild attack of cystitis develops, nothing is better than a daily wash of arg. nit. gr. i. to aq. dist. oj., filling the bladder from the meatus by the Ultzman syringe. If there is a diminished quantity of urine secreted, hot baths and diuretics should be given, lest symptoms of uremia be developed. Patients should be instructed against getting wet, especially wet feet, sitting on the cold ground or anything cold, whereby congestion might be favored and complete retention take place. Should this occur, a rectal enemata of hot water must be given at once, followed by a sitz bath of at least fifteen minutes' duration. The urine may gradually trickle away with this procedure. If not, an attempt should be made to pass a catheter. If a possible thing avoid any metal instrument. It must be remembered the posterior urethra is distorted and more or less softened, and a false opening can easily be made. If successful in passing a catheter it may be left in twenty-four to thirty-six hours. Should you find it impossible to pass any instrument, suprapubic puncture should at once be resorted to, and here, the same as though the urine were passing through the catheter from an overdilended bladder, only a part should be removed at first sitting. The canula can be corked, and in the course of three or four hours more urine can be removed and so repeated until the viscus is empty.

Should the case come to that point where it is necessary to use the catheter every time urine accumulates sufficiently, we have to deal with the two classes already mentioned. The first class will so thoroughly carry out our instructions that they may live to a ripe old age, with little or no inconvenience excepting to have a catheter close at hand. Strict cleanliness should be insisted upon, and a lubricant of boracic acid in carbolated vaseline used for the instrument. At intervals of five to seven days they should wash the bladder with a warm antiseptic solution, never allowing more than two and one-half to three ounces to enter at once.

With the other variety of cases something more radical is called for, and for these such operations as prostatectomy, castration, ligation of the vas deferens and permanent drainage have been suggested. I will speak but very briefly about these, never having used any of them and only knowing what I have read, or seen in the hands of others.

Where a clear diagnosis can be made of an enlarged third lobe, protruding, as it does, upward at the vesicle neck, thus forming a complete dam, this can be shelled out with fair results. I have seen only one case of this kind, but I could not follow it to see results.

Castration, devised by White, of Philadelphia, is a simple operation, but the mortality is high, and although he claims 83 per cent. of his cases much relieved, in those that I have seen and from a few reported post mortems, the results are not what they should be considering the great risk to life. Ligation of the vas deferens is claimed by some to be fully as effective as castration, the results on the nervous system being less. Permanent drainage is best made by the suprapubic route.

Some time ago, in a case of prostatic hypertrophy with several tough anterior strictures, I tried to make a perineal meatus, but the wound closed against my best efforts to keep it open.

Medicine internally or locally seems to have no effect in this condition, excepting as already mentioned—namely, solutions for washing the bladder.

In conclusion, let me repeat the old familiar saying, "An ounce of prevention is worth a pound of cure." Try to prevent diseases of this gland and its appendages. Trouble commences here earlier than we have supposed. Good advice to the boys may prevent years of suffering when they are old men.

HYSTERIA.¹

By B. C. LOVELAND, M. D., Clifton Springs, N. Y.

THE subject of this paper occupies about the same proportion of the time of the specialist in nervous diseases as the various forms of indigestion do with the general practitioner. And there is not a general practitioner of any experience who has not one or more cases on his hands, which have come to be his particular "thorn in the flesh," or, failing to receive the benefit they or their friends think they should, have stopped calling for his ministrations, and fallen to talking over among their neighbors the story of their distressing illness, how this and that and the other doctor have tried all their skill on them in vain, and in fact take a melancholy pleasure in the reputation of being the "sickest and most patient under unremitting suffering of all in the neighborhood."

To neglect the subject or treat it lightly is to ignore a matter which affects nearly every family among our patients, and often the physician's family is not exempt, while not a few who have treated others, themselves become the victims of the malady. The distribution of this disorder is not limited by lines of nationality, of age or of sex. It appears alike among young and old, male and female. We commonly regard it as a disease, but it is often met with in what we call health. In looking for a definition of hysteria we are met by numerous descriptions of its phenomena, but a definition at once concise and accurate is hard to find. One of the best is from Wood's *Atlas of the Nervous System*, by Dr. Jakob, and is as follows: "Hysteria is a psychosis, characterised by pathologic disturbance of mental conception and the will, which leads to an inexhaustibly large number of functional anomalies of the motor and sensory parts of the body, for the explanation of which no organic lesion can be found." If I were to define hysteria, I would say it is a condition in which the person's judgment and will, regarding himself or herself, is dominated by the emotional nature and not by the reason. And the object of this study is to arrive at a better conception of the workings of the hysterical mind, so that we may be able to more successfully meet the conditions, and also be on the alert to prevent the development of the condition in the families where we are called on as medical advisers.

1. Read at the twenty-ninth annual meeting of the Medical Association of Central New York, October 20, 1896.

If I may say a word as to the diagnosis of hysteria, it will be this : hysteria cannot be correctly diagnosticated without a sufficiently broad knowledge to differentiate it from all the diseases it may simulate. It is mortifying to the physician and disastrous to the patient when strychnia poisoning, for instance, is mistaken for hysteria, but this mistake has been made. And I might mention others. I do not believe that the hysterical patient is so from choice, or that the feeling about this disorder, commonly held among the laity,—and, I am sorry to say among many physicians also,—that hysteria is a synonym for obstinacy has any adequate foundation in fact. In the earlier manifestations, neither the patient nor those who care for the patient appreciate the real situation, and the patient is either treated as a *very* sick person, the whole household turning in to help in relieving her misery, thereby educating her to believe she *is* very sick ; or the other extreme is applied, and the patient is made to feel that her friends believe her to be shamming, in other words a hypocrite. This treatment usually is sufficient to develop any amount of perverseness. By what I have just said I do not mean to infer that shamming never occurs in hysteria, for it does ; but when it does it is the result of circumstances which seem to the patient to fully justify the deception. For instance, a young woman who has had every attention, whose illness has been somewhat protracted, doctor after doctor has been called, each looked wise, said little, and gave her something which she was led to believe would give her permanent relief. Perhaps relief followed for the time, but soon her old symptoms all return. She loses all faith in doctors and medicines. Each doctor said he knew what her trouble was, and promised her relief, but all failed to remove her bad feelings, or to refer them to the proper source. Is it any wonder that after such an education the poor creature has come to think in part at least with her numerous friends and advisers, that there must be some real disease at work in her, or else she could not feel so badly as she does ? Now comes a change in affairs. She has gotten beyond her own unaided power to control, and beyond the power of her friends to endure.

They go to their family doctor, or more likely at this stage take her to a specialist, describe the lamentable condition into which she has drifted, and beg him, if possible, to do something to help the sufferer. The doctor then tells the truth, which before he has either withheld or been unaware of. The attitude of her

friends toward her changes, she gets no more sympathy, is told that nothing is the matter with her, and that she could do differently if she wanted to, and other things equally soothing. Is it any wonder then that, believing as she does, she tries to convince her friends of the genuineness of her suffering? The effort to do this leads to minute descriptions of her pains or other feelings, which requires a very careful analysis, and more thought than ever on them. Then, if the pushing and opposition are kept up in the same spirit, of course it will be met by bad temper, and we will see the development of the churlishness usually thought to be inseparable from the malady. An illustration of the kind of education which terminates in hysteria, came under my observation a short time ago. An over-anxious mother and her four-year-old daughter were under my care. The little girl while at play falls down and hurts herself. She comes to her mother complaining of her hand. The mother gives the hand a good deal of attention, often asking if the hand still hurts. The child has it rubbed, and still whines about it. The mother can see nothing wrong, but thinks it possible that a bone is broken, and sends for the doctor. Nothing wrong, whatever, can be discovered, not even the place where the hand was struck. Advice is given not to pay any attention to it, and the mother says, "Why not put a bandage on it? My children seem to derive the greatest comfort from a bandage. In fact, they have always some of them got bandages on at home." And the hand is bandaged, bandage coming off while the child is asleep, and the hand is forgotten in the morning and therefore well. Partly through heredity, partly through education, this child of four years shows distinct signs of hysteria, but at her age I believe it could be entirely cultivated out. Just a word concerning the relation between hysteria and neurasthenia. I do not think the case of neurasthenia exists, in a chronic form at least, without more or less hysteria.

Some months ago there appeared in the *Medical Record*, an editorial, which quoted at length from an address by Professor Erb, of Heidelberg, which was in substance that the whole tendency of the times, the mad rush for success early in life, for the securing of a fortune at a time in life when our fathers would have been abundantly satisfied with a competency, the habit of taking a trip of sightseeing when overworked, instead of taking a needed vacation for rest, helped on as they are by our systems of telegraph, telephone and rapid transit on sea and land, all

these point to a morbid tendency of the times. And as a result of this state of affairs, says the learned Professor, "we have the neurasthenie, a refined expression of hysteria and hypochondriasis." In other words, he treats the words as synonymous and the conditions as phases of the same thing. From Dr. H. C. Wood I quote : "Neurasthenia is not a disease, but a condition of weak nerves, a root on which is often grafted hysteria, hypochondriasis, melancholia and insanity." A large proportion of the cases I see diagnosticated as neurasthenia are, I am sure, cases of chronic hysteria. Today I see a man, sound in physique, active in mind, absorbed in business, accounted not only a healthy man, but an unusually bright business mind. He meets with an accident, breaks his arm, is laid up from going to the office for two or three weeks. His arm gets well, but he has nervous prostration, is unable to attend to his business, and consults a nervous specialist who tells him he is suffering from neurasthenia, weak nerves, the result of over-taxation and ushered in by the shock to his nervous system which attended the accident. How often is this picture repeated ? The patient is told that there is nothing to do but to take a longer vacation, and perhaps is put on a rest cure. After more or less time spent in this way the patient begins to wonder why he does not regain his strength as his advisors said he would, and consults other and perhaps more eminent physicians. They look him over, examine him thoroughly, find every organ sound, and begin to wonder if his mind is all right ; finally concluding that he is simply a victim of hysteria, they tell him that he has no disease, that he needs occupation, that he can take up work if he would only stop thinking of his feelings, and the like. Now it is as difficult to make him believe this, which is the truth, as it would have been six months or a year ago to have convinced him that he was then doing the best thing he could to bring about the condition he is now in, which is equally true.

The point I would make is this. In the case referred to the man was essentially hysterical when he was called well, a bright, good business man, and so forth. The only difference being that then his judgment was overridden or controlled by his ambition, or his passion for riches or fame, to such an extent that he was constantly working more hours than his reason would approve ; while now his ambition, or passion for gain or glory, has been displaced in its control of his judgment by his bodily feelings, another and lower order of his emotional faculties. In neither

state is his judgment directed by his reason, which, it is needless to say, is the only guide for the judgment. This is the condition which I call hysteria, whether it be found in what we term health or disease, and it is, as I have indicated in the foregoing illustration, only the chance of an accident, apparently slight, when one is in this condition, which marks the difference between the person termed well, active, bright, and so on, and the one usually termed a "crank," a fraud, imposing on patient friends. Hence the importance of appreciating the condition whether in health so-called or in disease.

I do not mean to go into the treatment of hysteria in detail, but will state a few facts which will commend themselves to everyone who has had any experience in handling these unfortunate cases. First, the patient needs to be removed from the influence of her family. This seems unnecessary and often absurd to the family or friends of the patient, but the sympathy and attention of the family is as inimical to the recovery of the hysterical patient as it would be to have some one keeping up a daily supply of liquor for a patient you were trying to break of the alcohol habit. Second, all the attention should be paid to establishing such habits of eating, drinking and exercise as will tend to increase her health to the highest possible point. Third, pay as little attention as possible to the symptoms as they arise, except to keep up a strong moral treatment, encouraging her to disregard her feelings, and divert herself with anything to employ her hands, explaining to her what hysteria means and how it is conquered. I have said nothing about the medical treatment of hysteria thus far, because I think it is so much less important than the moral treatment. It may be necessary, in fact is often necessary, in advanced cases to give medicine at times, but anything she has come to think does her special good, has been used long enough, and should be dropped or changed immediately if we are to consider our patient's best good. For it will be remembered that we are trying to break a habit of the domination of the patient by the emotional faculties, which is marked by great dependence on outside helps, such as sympathy or encouragement of friends, medicines, stimulants, smelling salts, hot water bags, and often a number of other things. Now, if the habit referred to is to be broken, a habit of independence and self-forgetfulness must be cultivated. And this cannot be done so long as the patient is allowed to have either friends to sympathise, or medicines, or other

remedies to turn to for every symptom, either real or imaginary. The development of hysteria is an educational process, and its cure is also an educational or culture cure.

At the close of this paper I wish to reiterate what I have already alluded to, that is, the importance that attaches to the physician's knowledge and advice in recognising and checking these unfortunate conditions in their incipient stage, and in preventing their development altogether, so far as his influence may go in the education of the children and young people under his care. This is said to be the age of preventive medicine, and much time and labor are devoted each year in that direction, but here is a field poorly worked, which I think will yield as rich a harvest as any, and might be made a great blessing to the oncoming generation, if not to the chronic hysterical sufferer.

REPORT OF A CASE ILLUSTRATING THE BENEFIT OF LAPARATOMY AND DRAINAGE IN DESPERATE CASES OF PURULENT PERITONITIS.¹

By H. T. WILLIAMS, M. D., Rochester, N. Y.

THE case which I am about to report was referred to me July 21, 1896, by Dr. Guinan, of this city, who was called to the case only the day before. Previous to this she had been treated for several weeks by a homeopathic physician. The following history of the case was obtained :

Mrs. J. D. S., German, 38 years of age, married eighteen years ; never pregnant ; family history good ; menses regular, but scanty ; no dysmenorrhea. Had an attack of peritonitis sixteen years ago, which lasted two or three months. Always well before and since until the forepart of last June, when without apparent cause began to have pain in lower part of abdomen and pelvis, which gradually grew worse until she was confined to bed with general peritonitis.

I found the patient with a temperature of $104\frac{3}{5}^{\circ}$; pulse, 140 to 150 ; respirations, 40 ; abdomen distended, dull on percussion over lower part of abdomen, tympanitic above ; surface of abdomen mottled from prolonged application of spirits of turpentine. Patient vomited frequently.

She was removed to Rochester City Hospital that afternoon, and as she was unable to retain food and was in a condition bordering on col-

1. Read before the Central New York Medical Association, at its annual meeting, held at Rochester, October 20, 1896.

lapse, I deferred operating until the next day and ordered nutrient enemata given and strychnine and brandy hypodermatically through the night. The next morning she was in a little better condition, pulse stronger, less vomiting and temperature 103.

An incision about three inches in length was made in median line of abdomen; extensive adhesions were found between peritoneum, omentum, intestines and Fallopian tubes. Everything seemed matted together and pus was found free and in pockets throughout greater part of abdominal cavity. After breaking up some adhesions and removing some sloughs, deposits of lymph and about a pint and a half of pus, it was found that the origin of the trouble was in the Fallopian tubes, and these were so adherent and disorganised that removal of them was out of the question. The abdomen was flushed with several gallons of salt solution, an opening was made through vagina posterior to uterus and a large-sized rubber tube passed from abdominal opening into vagina and another one from opening in abdomen deep into left side of pelvis. Iodoform gauze was packed around tubes, usual dressing applied and patient put to bed.

In a few hours her temperature had dropped to $101\frac{2}{3}^{\circ}$; pulse, 140, respiration, 36. Next day temperature was $100\frac{3}{4}^{\circ}$; pulse, 120. The temperature never rose above 100° after this. *Considerable* pus discharged from tubes for several days and then became rapidly less each day. Bowels were moved every day by either laxatives or enemata. The seventh day after operation the nurse noticed fecal matter coming through the vagina, and the next day the bowels moved entirely through the vagina. The drainage-tubes were then withdrawn and with forceps several large sloughs were easily removed. These sloughs extended in different directions deep into the pelvis, after removal of which urine and fecal matter came through abdominal opening and pus through urethra. The abdominal cavity was packed with iodoform gauze, which had to be changed several times a day and all parts irrigated with 2 per cent. creoline solution. A catheter was kept in bladder and the creoline solution was thrown through this and washed through abdominal opening. Fecal matter and urine were discharged entirely through vagina and abdominal opening. After this state of affairs had existed for about a week, it occurred to me that if the anus could be kept patulous the bowels might possibly move through it. Acting on this idea I inserted a large rubber tube through anus and about eight inches into bowel, and the vagina and abdominal opening kept firmly packed with iodoform gauze. This procedure was extremely satisfactory. From this time on, the bowels moved entirely through the tube and in ten days the fecal fistula had entirely healed. The tube was removed and since that time her bowels have moved naturally. One thing noticeable was the pain caused by the presence of the tube in the rectum. The patient begged for its removal several days before it

was thought safe to remove it, and seemed to suffer more from this tube than from anything else during her illness.

After a week or so, less pus discharged through catheter in bladder and it was noticed that considerable urine came through it, and less urine through the abdominal opening.

The catheter was left in bladder, being frequently removed and cleansed, and bladder irrigated with creoline or boric acid solutions for six weeks, when discharge of urine from wound having nearly ceased the catheter was removed. Since then she has urinated naturally every four to six hours. Abdominal opening is now nearly closed, but occasionally, once in two or three days, when bladder is quite full, a few drops of urine escape through abdominal fistula. No urine has escaped in that way for the past five or six days. Patient is up and around, eats and sleeps well and is getting fat, in fact is nearly well. Has not menstruated since operation.

The case is interesting in demonstrating what may be accomplished by free drainage and irrigation in desperate cases of purulent peritonitis, even where serious complications exist.

52 CLINTON PLACE.

Clinical Lecture.

A CASE OF UTERINE MYOMA.

By M. A. CROCKETT, M. D.,

Gynecologist to the Erie County Hospital; Assistant Gynecologist to the Buffalo General Hospital; Clinical Lecturer in Gynecology, University of Buffalo.

REPORTED BY R. F. KEYES, M. D.

THIS afternoon we shall consider the case of the patient upon whom several of you saw me operate last week. In connection with the clinical history I shall exhibit this specimen of uterine myoma, which was removed at the time of operation, and try to point out some of the relations between the symptoms and the pathologic condition.

It is of great importance for you to acquaint yourselves with the appearances and the "feel" of such a tumor, for you can then understand how it gives rise to certain signs upon vaginal and abdominal examination.

From our examination certain inferences were drawn. This specimen shows us how correct those inferences were. In other

words, we have all the advantages of a post-mortem and cure the patient at the same time. The history of the patient is as follows :

Mrs. H., aged 50 ; married twenty years ; no pregnancies. About eight years ago there was discovered in the pelvis a tumor, giving rise to considerable pain and irritation of the bladder. At the hands of a distinguished specialist in another city she underwent a thorough course of electrical treatment, from which she derived marked benefit, but not complete restoration to health. Since the establishment of the menopause, one year ago, her symptoms have been quite severe, consisting of pains in the back of the neck, arms and legs, discomfort and throbbing in the region of the left groin, profuse leucorrhea, irritation of the bladder and constipation. In appearance the patient was stout, but very anemic.

Examination.—Heart and lungs normal. Urine, one pint in twenty-four hours. Specific gravity, 1028, acid ; no albumin nor sugar. Sediment, pus cells and urates.

Abdominal Examination.—No apparent distention on inspection. On palpation, a firm, irregular, slightly movable mass, about the size of a cocoanut, could be felt, rising out of the pelvis.

Vaginal Examination.—Vagina small and elongated. Cervix pressed against pubic bone. Posteriorly, and filling the true pelvis, a firm, smooth, elastic mass connected with the cervix and with the tumor felt above.

Diagnosis.—Uterine myoma, partially incarcerated within the pelvis.

Upon October 22d, at the Riverside Hospital, I performed a complete hysterectomy by the supravaginal route and the specimen before us confirms the diagnosis.

In the light of this post-operative knowledge let us consider two points in the clinical history. This patient received electrical treatment from competent hands. You know it is claimed that electricity is particularly effective in dealing with this class of cases and that its use is followed frequently by either disappearance of the growth or of the unpleasant symptoms, or both. Many facts substantiate these claims, but note what happened in this particular case. The patient tells me her physician eight years ago estimated the tumor to be about the size of a lemon. The specimen before you weighs between three and four pounds ; hence, its growth was not checked, though possibly retarded. Some of the symptoms were relieved for a time, but not for long. During the last year her condition has been worse than ever before.

Another general belief is that the menopause cures these tumors as well as all the other ills of woman. Note in this case that the patient's condition has been much worse since the menopause. I would not have you think that the effects of electricity or of the change of life are never curative in uterine myomata, but simply warn you to bear in mind the exceptions as well illustrated by this case, so that you will avoid involving yourselves and your patients in bitter disappointments.

Let us turn to the specimen itself. It is a tumor containing both fibrous and unstripped muscular tissue, hence, its proper name is fibro-myoma; but usually the term fibroma or myoma is applied to such tumors to save ourselves the trouble of using two words. You must remember, however, that such growths never consist of only one kind of tissue. This specimen consists of two lobes, one about the size of a baseball, involving the posterior wall of the uterus; the other, somewhat similar, has its origin in the anterior uterine wall.

The important part of the growth is in the posterior lobe which formed the mass felt lying posterior to the cervix. This division of the tumor when engorged with blood was sufficiently large to become impacted within the true pelvis and give rise to certain pressure symptoms. From your lectures in obstetrics you have become acquainted with the symptoms of that serious condition known as incarceration of the gravid womb. A somewhat similar condition was developing as this tumor, confined within the bony pelvis, slowly increased in size. The bladder, pushed upward, began to show signs of irritation; pressure upon the rectum caused constipation, pressure upon nerve trunks produced pain which radiated into the thighs and, reflexly, disturbed other portions of the nervous system. At the time of operation there was not room sufficient to pass my finger between the tumor and the pelvic wall, and, although there were no adhesions, it required vigorous pulling in order to deliver the tumor from the pelvis. As early as the second day after operation the patient congratulated herself on being free from pain and the discomforts of weight and pressure in the lower part of the abdomen.

In the case of tumors growing upward into the abdomen, a great increase of size is necessary before there are signs of pressure. In the case of the pregnant uterus, we see how readily the abdominal organs adapt themselves to a diminished amount of space. It is very different when the tumor is confined within a bony cavity.

Severe symptoms then develop while the growth is comparatively small, and, following the symptoms due to disturbances of neighboring organs, we may get evidences of gangrene of the tumor itself. The main indication for operation in this case was not the absolute size of the tumor, but its situation. I have seen patients who were quite comfortable with fibroids three times the size of this one, because the growth was upward into the abdomen instead of downward into the pelvis.

You remember the patient complained of profuse leucorrhea and as I lay open the uterine cavity about a tablespoonful of pus escapes. Endometritis is a very common accompaniment of uterine myoma and is frequently of a hemorrhagic form, but in this case there is no history of metrorrhagia. As we examine this specimen we see that the fibro-myomatous growth has been away from and not toward the uterine cavity, whereas, hemorrhage is most common when the tumor grows under the mucous membrane into the cavity of the uterus.

On the other hand, this endometrium, twice the normal size and with a more or less deranged circulation, has afforded a favorable ground for the growth of septic bacteria and this profuse discharge, continuing for several years, has played an important part in producing anemia and loss of strength.

As to the cause of these tumors very little is known. Sterility is given as an etiological factor, but some authors regard sterility as a result instead of a cause. This patient, you remember, has been married twenty years and has never become pregnant. Observation has established the fact that race plays an important part etiologically, the negro race being most frequently affected.

In conclusion, I will sum up as follows :

First—This case affords an instance of the growth of a fibro-myoma not prevented by the use of electricity nor the establishment of the menopause.

Second—The leading symptoms forming the indications for operation were the results of the incarceration of the tumor within the pelvis.

Third—The specimen itself illustrates the subserous and interstitial varieties of fibro-myomata with purulent endometritis.

(NOTE.—The patient made a good recovery and was walking about her room three weeks from date of operation.)

Society Proceedings.

MEDICAL ASSOCIATION OF CENTRAL NEW YORK.

THE twenty-ninth annual meeting of the Medical Association of Central New York was held at the Chamber of Commerce, Rochester, N. Y., Tuesday, October 20, 1896.

The association was called to order at 11 o'clock by the president, Dr. W. S. CHEESMAN, of Auburn. The reading of the minutes of the last meeting was dispensed with and, on motion of the Secretary, were approved as printed in the proceedings of last year.

The president then announced the following committees :

Credentials—Drs. C. W. Wilbor, Monroe ; John Gerin, Cayuga ; H. L. Chace, Wayne.

Business—Drs. A. L. Benedict, Erie ; H. B. Wright, Onondaga ; B. W. Loomis, Onondaga.

Reception—Drs. E. B. Angell, J. O. Roe, H. T. Williams, T. O. Tait and W. B. Jones, Monroe.

Ethics—Drs. Clark, Onondaga ; B. C. Loveland, Ontario, and D. R. Burrell, Ontario.

Publication—Drs. Wm. C. Krauss, Erie ; C. A. Van der Beek, Monroe ; S. L. Elsner, Onondaga.

The report of the treasurer was read and showed a balance on hand of \$116.77.

The report was accepted and ordered placed on file.

The chairman of the Committee on Credentials announced the following list of delegates who had complied with the requirements of the by-laws : John O. Palmer and Susan J. Otis, Cayuga ; W. M. Brown, Benjamin Wilson, Anna Craig, E. A. Cady-Harris, Evelyn Baldwin, F. W. Maloney and Frank F. Dow, Monroe ; B. W. Loomis, Geo. Edward Clark, I. Harris Levy, Juliet E. Hanshett, H. B. Wright, Onondaga ; S. R. Wheeler, Ontario ; J. W. Eddy, Oswego, and L. H. Smith, of Wayne, and, on motion of the secretary, they were elected to permanent membership.

The following members and delegates registered :

Name.	County.	Name.	County.
A. L. Benedict, Erie.		F. W. Higgins, Cortland.	
S. R. Wheeler, Ontario.		L. H. Smith, Wayne.	
B. C. Loveland, Ontario.		M. R. Caresly, Orleans.	

Name.	County.	Name.	County.
John Gerin, Cayuga.		D. M. Totman, Onondaga.	
E. S. Foreman, Cayuga.		W. Rider, Monroe.	
W. D. Wolff, Monroe.		J. W. M. Canley, Monroe.	
H. L. Chace, Wayne.		T. Oliver Tait, Monroe.	
J. C. Davis, Monroe.		Thos. Jameson, Monroe.	
Chas. E. Doubleday, Yates.		L. Allen Walker, Monroe.	
F. H. Stephenson, Onondaga.		C. A. Van der Beek, Monroe.	
H. B. Wright, Onondaga.		Frederick Sefton, Cayuga.	
R. Cook, Monroe.		F. D. Putnam, Cayuga.	
C. H. Richmond, Livingston.		E. H. Howard, Monroe.	
J. A. Richty, Ontario.		L. B. Andrews, Wayne.	
I. Harris Levy, Onondaga.		W. V. Ewers, Monroe.	
A. B. Randall, Onondaga.		A. L. Beahan, Ontario.	
J. Henry Dowd, Erie.		O. J. Hallenbeck, Ontario.	
Alfred Mercer, Onondaga.		W. E. King, Wyoming.	
B. W. Loomis, Onondaga.		E. Cady-Harris, Monroe.	
L. Howe, Erie.		M. R. Carson, Ontario.	
G. E. Clark, Onondaga.		L. W. Horst, Monroe.	
Geo. G. Jones, Livingston.		F. Kenyon, Cayuga.	
W. T. Linn, Madison.		A. B. Straight, Wyoming.	
E. H. Gray, Monroe.		A. R. Gumberts, Monroe.	
H. L. Elsner, Onondaga.		W. L. Conklin, Monroe.	
C. O. Jackson, Ontario.		A. M. Mead, Ontario.	
John O. Palmer, Cayuga.		E. H. Earl, Monroe.	
Wm. M. Brown, Monroe.		Benj. Wilson, Monroe.	
F. S. Snow, Onondaga.		E. L. Mooney, Onondaga.	
M. A. Brownell, Wayne.		W. S. Hare, Monroe.	
Nathan Jacobson, Onondaga.		J. E. Ottaway, Monroe.	
Allen Cone, Onondaga.		H. R. Nettleton, Monroe.	
Susan G. Otis, Cayuga.		C. H. Towler, Wayne.	
J. P. Creveling, Cayuga.		John Zimmer, Monroe.	
M. S. Collier, Monroe.		C. T. La Moure, Monroe.	
T. H. Hallett, Wayne.		E. B. Potter, Monroe.	
J. A. Robson, Ontario.		Marion Craig Potter, Monroe.	
J. F. Myers, Onondaga.		Anna Craig, Monroe.	
A. F. Sheldon, Wayne.		F. W. Zimmer, Monroe.	
E. B. Angell, Monroe.		L. K. Mazger, Monroe.	
I. E. Harris, Monroe.		Thos. Mooney, Monroe.	
F. B. Storer, Orleans.		P. C. Guinan, Monroe.	
W. S. Ely, Monroe.		W. J. Herrimau, Monroe.	

Name.	County.	Name.	County.
Lewis W. Rose,	Monroe.	Le Roy L. Hollis,	Oswego.
B. S. Coleman,	Monroe.	J. E. Hanchett,	Onondaga.
R. T. French,	Monroe.	R. S. Carr,	Wayne.
E. E. French,	Monroe.	J. H. Finnessy,	Monroe.
M. J. Slight,	Monroe.	F. A. Jones,	Monroe.
Evelyn Baldwin,	Monroe.	L. H. Woodruff,	Monroe.
Alvin A. Hubbell,	Erie.	J. M. Ingersoll,	Monroe,
Lorenzo Barrows,	Erie.	W. W. Williams,	Monroe.
L. T. Gandy,	Monroe.	Willard D. Becker,	Monroe.
A. H. Thomas,	Monroe.	H. C. Phillips,	Monroe.
Cornelia White Thomas,	Monroe.	F. W. Spaulding,	Ontario.
A. P. Maine,	Monroe.	J. D. Briggs,	Wayne.
F. W. Maloney,	Monroe.	D. G. Mason,	Monroe.
Chas. Reitz,	Monroe.	L. A. Weigel,	Monroe.
Jos. W. Eddy,	Oswego.	F. H. Lawers,	Monroe.
C. R. Barber,	Monroe.	Wm. C. Krauss,	Erie.
F. D. Andrew,	Monroe.	D. F. Curtis,	Monroe.
W. B. Jones,	Monroe.	Thomas A. O'Hare,	Monroe.
P. D. Carpenter,	Monroe.	A. C. W. Graham,	Monroe.
R. V. Bamber,	Orleans.	Jno. H. Pratt,	Ontario.
Fred Gould,	Orleans.	J. F. Sherman,	Monroe.
Alonzo Redman,	Monroe.	G. E. H. Jones,	Livingston.
J. W. Flick,	Monroe.	Archibald Dann,	Monroe.
S. Hayward,	Monroe.	W. J. Howe,	Monroe.
G. Theo. Fischer,	Monroe.	E. R. Hardenbrook,	Monroe.
E. H. Lapp,	Monroe.	F. East,	Monroe.
B. F. McDowell,	Ontario.	H. P. Sheldon,	Monroe.
Peter Stockschrader,	Monroe.	O. E. Jones,	Monroe.
J. D. Dunning,	Monroe.	Ida M. Porter,	Monroe.
W. J. Hennessy,	Wayne.	S. L. Elsner,	Monroe.
Frank F. Dow,	Monroe.	C. A. Huber,	Monroe.
H. T. Williams,	Monroe.	R. M. Moore,	Monroe.
John O. Roe,	Monroe.	Nathan W. Soble,	Monroe.
C. C. Thayer,	Ontario.	Henry H. Corell,	Monroe.
Wm. S. Cheesman,	Cayuga.	F. C. Curtis,	Albany.
J. E. Weaver,	Monroe.		

The president, Dr. W. S. CHEESMAN, of Auburn, N. Y., delivered the annual address, entitled Back to Nature.

Upon motion a vote of thanks was extended by the association to the president for his excellent address.

The chairman of the business committee announced that papers would be read in the order in which they appeared in the secretary's program, and requested that each reader confine himself to twenty minutes.

Papers were then read as follows: (1) Should Credé's method be made obligatory in public institutions? By Lucien Howe, M. D., Buffalo, N. Y. (2) Ether anesthesia—its semicentennial anniversary. By Nathan Jacobson, M. D., Syracuse, N. Y.

Discussion:

Dr. E. M. MOORE, SR., of Rochester: I have several little things to say. I strongly suspect that I am the oldest man in the profession here and can tell you of the practice in the old days. Now, in those days, the function of the surgeon was a very serious one. There was an amount of skill required which is not called for at the present time; an extra skill we can scarcely conceive of, now that anesthesia has rendered fifty men competent, where only men of great skill could be surgeons in the early days. It is all very well to tell what used to be done; how patients were held down on the table; what an extraordinary annoyance it was to have the women helpers in the room and what a tragic scene it was.

In this admirable paper of Dr. Jacobson's he has given us a good description of many things, but as regards that of the government support, that would be a very dangerous precedent. Any such support applies to other professions in life also.

Milton sold *Paradise Lost* for five pounds; and this is the fate of higher mankind, which has always persecuted its great benefactors. Christ was crucified. Socrates was made to swallow the Hemlock. Remember the old distich:

Seven cities claimed Homer dead,
Through which the living Homer begged his bread.

Dr. WILLIAM S. ELY, of Rochester: I have listened with interest to this valuable paper. Having just read a full report of the addresses at the semicentennial celebration of the discovery of ether in Boston, I wondered what Dr. Jacobson would find in the preparation of his paper that had not already been published; but, after hearing his brilliant article, I am prepared to say that Boston should have sent to Syracuse for her chief orator on the occasion of this ether anniversary.

(3) Hysteria. By B. C. Loveland, M. D., Clifton Springs, N. Y.

Discussion :

Dr. E. B. ANGELL, of Rochester: The subject of hysteria is too broad a one for brief discussion. Of its pathology we have little exact knowledge. In its expression it simulates almost every known disorder. It is said, indeed, that no sooner has the symptomatology of a new disease been established than we meet with its hysterical counterfeit. Recently in a journal of neurology I encountered an article on The hysterical forms of Raynaud's disease, which well illustrates the force of this relationship.

Unquestionably hysteria is a psychological disorder and more or less allied to a perversion of the subconscious activity, of which hypnosis is a kindred manifestation. Furthermore, it is one of the marked stigmata of degeneration. There is a decided exaltation of the *ego* with a corresponding decrease in the control nominally exercised by the higher intellectual centers. The individual is no longer stable, but the prey of every excessive, ingoing sensory impression, whether it be exalted physical sensation or undue mental emotion.

If we accept this view as a basis of rational treatment, the prime importance of securing healthy physical action as a basis for the reëstablishment of nominal self-control becomes apparent. Succeeding this, mental and moral education are scarcely secondary in importance, to secure which oftentimes seclusion from the hurtful sympathy of friends is absolutely necessary. Hysterical manifestations are not imaginary, but real, and demand the utmost ingenuity and patience of the physician for their removal.

(4) Breathing and bicycling: the ill effects of mouth-breathing upon the throat and lungs and the importance of free nasal respiration in the exercise of wheeling. By John O. Roe, M. D., Rochester.

Discussion :

Dr. SARGENT F. SNOW, of Syracuse: The paper just read is full of good points, and I have no doubt that the observations regarding bicycle riders are correct.

There are many here who do more or less nasal work, and we all know that one of the worst obstacles in our way is the recurrence in a year or two of some membranous thickenings, even though we did our work thoroughly and well. Experience teaches

me that nearly all patients who do not get good results from surgical work are still clinging to their pernicious habit of mouth-breathing. In fact, this habit in some cases is most persistent, and unless broken up will tend to bring nasal surgery into disrepute.

Dr. Roe's remarks likening the nasal passages to a roadway grown up with weeds is a very good one. It is surely a fact; and further, if we use our mouth for breathing purposes the nasal, post-nasal, aural and laryngeal membranes will become very sensitive and affected by chronic inflammation.

I think that Dr. Roe's paper is one that all here who do nose, throat and ear work can most heartily endorse.

Dr. WILLIAM S. ELY, of Rochester: I desire to express my approval of the views advanced by Dr. Roe in his excellent article. I do not know that I fully share the views expressed by throat specialists as to the dangers of mouth-breathing. I have looked upon the mouth as a supplemental breathing organ, constantly called upon in conversation and in all forms of violent exercise.

The demand for an increased amount of oxygen that is felt in active exercise cannot always be met by the nostrils, even when they are unobstructed, and I think there are times when we all feel thankful that we can open our mouths for supplemental breathing. In a pure country, sea or mountain air, I relish drinking it in as much as some persons enjoy a glass of champagne.

It seems to me that there are, therefore, some qualifications to the advice, "keep your mouth shut when breathing." I want to say, however, that the nares should be kept free and unobstructed and that Dr. Roe is correct in all that he has said on that point.

Dr. B. W. LOOMIS, of Syracuse: I have been much interested in the paper read by Dr. Roe and being a bicycle rider myself, of several years' standing, I have a particular interest in the points he raises. From a physiological point of view, the paper is an admirable one. We all admit the claim that the nose is the channel for breathing and that riders of "the wheel," as well as others, should keep the mouth shut and do the greater part of their breathing through the nose. This position is, at the present time, unassailable.

I think everyone will agree, also, that if bicycle riders breathe too much through the mouth, or fail to use the nasal passages for the purpose for which they were intended, why, then, the pastime or exercise is likely to be injurious.

But the question of importance to me and to riders generally is: Do bicycle riders as a rule breathe in this injurious way? I would like to ask Dr. Roe to come directly to the point in the paper, as to whether it has been found that riders are suffering more from throat trouble, from nasal or other troubles of a like nature, than they did before they rode the wheel. Does the practice of "wheeling" develop any great liability to these difficulties?

As bearing upon this question and serving as a basis for the opinion I have partially formed, I may say that I am a member of one of the largest athletic organisations in the state—the Syracuse Athletic Association. This association numbers between 600 and 700 members, a majority of whom are riders of bicycles. I have ridden a wheel regularly during the past four years and have been in general practice for nearly twenty years, so it seems that I am in a position to discover whether bicycle riders are apt to develop these particular ailments. In view of the fact that most patients, when they first discover any local trouble, usually consult the general practitioner before going to the specialist, it seems to me that I should have had my attention called to any increase of these ailments among riders. As a matter of fact, I have been unable to see that wheelmen are especially likely to contract throat or nasal troubles as a result of riding and I do not think there is anything in the exercise tending to produce these troubles.

Dr. ROE: In closing the discussion I have but a few words to say. The subject of the paper was suggested entirely by the frequency with which patients came under my observation suffering from affections of the throat and which had been much aggravated by the increased amount of mouth-breathing, while riding their wheels, necessitated by the obstructed condition of their nasal passages. In reply to Dr. Loomis' question, Does bicycle riding tend to develop a liability to affections of the throat? I would say that it certainly does not, so long as the person is able to breathe freely through his nose. If, on the other hand, he is obliged to breathe through his mouth for any length of time, the increased amount of air respired during the active exercise of wheeling tends directly to aggravate any chronic affection of the throat, or it may induce affections of the throat which had not previously existed, as was pointed out in the paper.

I fully concur with all that Dr. Snow has said, but am surprised that Dr. Ely should regard nasal respiration as of so slight

importance. It is fortunate, of course, that we have the mouth to utilise for supplementary respiration. Many would suffer very seriously if they were obliged to get on with the small amount of air which they are able to obtain through their obstructed nasal passages. During ordinary conversation, more or less air is taken in through the mouth without special detriment, as I have stated; but it is the continuous respiration through the mouth which produces serious results. These ill-effects are not only observed during wheeling, when continued for a length of time, but are also seen in persons who sleep with the mouth wide open, taking all or nearly all of their air through the mouth. Not alone in the throat are these consequences of mouth-breathing observed, but also in the distorted countenance. The influence of mouth-breathing upon the physiognomy was first pointed out by Catlin and depicted in a number of striking illustrations.

The more the nose is studied, the more we recognise the importance of nasal respiration and the protection which it gives to the organs below. It is a fact of daily observation that no person can breathe continuously through his mouth without inducing more or less disturbance in the respiratory organs below, and this disturbance steadily increases in proportion to the length of time that the habit is indulged in.

(6) Friedreich's ataxia. By Dr. F. H. Stephenson, Syracuse.

The meeting was then adjourned until 2 o'clock p. m., and luncheon was served in the Chamber of Commerce, through the courtesy of the Monroe County Medical Society. The association reassembled at 2.30 p. m., at which time the reading of papers was continued.

(7) The use of the stomach-tube. By Dr. A. L. Benedict, Buffalo.

Discussion :

Dr. B. W. Loomis, of Syracuse: Regarding the principles involved in the uses of stomach-tubes, Dr. Benedict has covered the ground thoroughly in his paper. There are, however, some matters of a mechanical nature in connection with the subject to which I should like to call attention. To begin with, the introduction of a tube and washing out the stomach is a problem, or rather a series of problems, in hydraulics. On this account the features of the operation are entitled to our consideration. The outer, or funnel-end of the stomach-tube is usually of soft rubber, and will hold

when filled with water about five ounces. It is so soft and flabby that in practice it is difficult to handle. I have found much satisfaction in using a large aluminum funnel, which is thrust into the rubber tube after the funnel-end is cut off. This aluminum funnel is light and is provided with a handle, making it easier to hold, and it will hold when full nearly a quart of water. The weight and pressure of this volume of water will produce a more thorough lavage. It loosens mucus and particles of food to a greater degree, and is, therefore, apt to insure a complete emptying of the organ.

Another feature in the mechanical problem is the relation of the inside diameter or bore of the tube to the outside diameter. On making a tour of inspection among the drug stores, the dealers in surgical instruments and rubber goods, and comparing different tubes kept in stock, I learned that there is considerable difference in tubes as regards their internal diameter. It is obvious that the efficiency of lavage depends to some extent on the internal diameter of the rubber tube. It should be as large as possible consistent with strength and stiff enough not to collapse. Supposing we have a choice between two tubes of equal diameter externally, it is plain that the one having the largest bore or internal diameter will permit the passage of water more freely and, what is more important, will allow larger particles of undigested food and débris to come forth from the stomach that could not pass through a tube of smaller diameter. With a view of determining experimentally the efficiency of different tubes of the same size outwardly, I have connected them with a large bottle and by syphonage have found that some of those offered for sale are so small that it requires twice as long to empty the bottle as with other tubes of the same external diameter, but having a larger bore. It follows, as a matter of course, that such a tube would not efficiently remove large pieces of undigested food, and even mucus will not engage and pass through the narrow orifice.

Another reason for using tubes of as large caliber as possible is found in the fact that with some patients it is desirable to accomplish the work in as short space of time as may be, because these patients will almost invariably vomit and expel the tube after a moderate lavage.

(8). Sciatica—A neuritis, rarely a neuralgia. Illustrative cases. By Dr. E. B. Angell, Rochester.

Discussion:

Dr. J. W. EDDY, of Oswego: I wish to say one thing of the chloride of methyl, C_2H_5Cl , which I have used. Chloride of methyl is a liquidised gas. It is manufactured in France when making beet sugar, during a certain stage of the process. I have applied it to sciatic neuritis many times with success. Chloride of methyl must not be confounded with tubes of chloride of ethyl, C_2H_5Cl , which are found in the market. I brought over from France, twelve years ago, a copper flask containing chloride of methyl, which I had McKesson & Robbins refill by sending it back to France, but since then they have kept the chloride of methyl on hand, and I have been able to get my flask filled in New York by them.

Dr. WM. C. KRAUSS, of Buffalo: I am surprised that the doctor did not speak of nitroglycerine. There is great virtue in this drug and the administration of nitroglycerine two or three times a day, increasing it to ten minimums, will relieve a case of sciatica in two or three days sometimes. I reported quite a number of cases treated in this manner at the last meeting of the State Medical Society and since then have treated others with the same good results. Chronic sciatica, of course, does not yield as readily as in the acute cases, and supplemental treatment is necessary in these cases.

Dr. H. L. ELSNER, of Syracuse: In the chronic forms of sciatica neuritis we find osmic acid used hypodermatically directly into the nerve of very great value. It is a remedy which has been used for some time by many neurologists, and in numerous cases where other agents have failed it has proven to be a drug of considerable efficiency. Certainly, it cannot be expected that osmic acid will relieve all symptoms of sciatic neuritis, but in my hands it has relieved a sufficient number of cases to merit further trial. George Jacobi, of New York, a number of years ago, wrote a very excellent paper on the use of osmic acid in these cases, to which I would refer those who are interested in this subject. I have also reported a number of cases in which the drug was used, giving ten or fifteen drops of a one per cent. solution every day or every other day for a few weeks. The solution must be freshly made whenever needed, as it is very likely to undergo change which makes it less efficient.

Dr. R. W. BAMBER, of Kendall: I have found in a few cases, that the application of a spray of ethyl chloride sufficient to freeze the

tissues over the tender points had effected a cure after one, two or three applications, when other methods of treatment had failed. The ethyl chloride for this purpose comes in convenient little glass tubes marked "ethyl chloride (Bengue)."

Dr. ANGELL: In summing up this discussion, I will only call attention to the point of my paper, which was rather intended to emphasise the nature of sciatica than to elaborate its treatment.

Unquestionably various modes of treatment will be efficacious, but a clear understanding of the nature of sciatica is of value in its rational management.

(9) Erythromelalgia. By Henry L. Elsner, M. D., Syracuse; discussed by Dr. Higgins, Dr. Nathan Jacobson, Syracuse, Dr. J. P. Creveling, Auburn, and in conclusion by Dr. H. L. Elsner. (10) Expert testimony. By Frederick Sefton, M. D., Auburn. Discussed by Dr. F. F. Dow, Rochester, Dr. D. M. Totman and Dr. Nathan Jacobson, Syracuse, Dr. A. A. Hubbell, Buffalo, and Dr. H. L. Elsner, Syracuse. (11) Experiences in the antiseptic treatment of typhoid fever. By C. H. Richmond, M. D., Livonia Station; discussed by Dr. A. L. Benedict, Buffalo, Dr. W. S. Ely, Rochester, and in conclusion by Dr. C. H. Richmond. (12) Report of a case illustrating the benefit of laparotomy and drainage in desperate cases of purulent peritonitis. By Henry T. Williams, M. D., Rochester; discussed by Dr. N. W. Soble, Rochester. (13) Syphilis of the brain, with report of three cases. By Wm. C. Krauss, M. D., Buffalo. (14) Should opticians practise medicine. By Alvin A. Hubbell, M. D., Buffalo.

The following papers were read by title: Differential diagnosis of certain diseases of the spinal cord, by Floyd S. Crego, M. D., Buffalo. Pistol-shot marks medico-legally considered, by A. L. Hall, M. D., Fair Haven. Herpes facialis, by A. A. Young, M. D., Newark. Some practical aspects of modern medical science, by John O. Palmer, M. D., Auburn. Rational treatment of asthenopia, by Wheelock Rider, M. D., Rochester. Analysis of one hundred and sixty-four cases of diphtheria treated by antitoxin, by Irving M. Snow, M. D., Buffalo.

Dr. Howe, of Erie, offered the following preamble and resolution, which was accepted:

WHEREAS, Purulent ophthalmia of infancy produces about one-fifth of all the blind in the asylums of this state and elsewhere; and

WHEREAS, The proportion of these cases can be decidedly lessened

by the employment of Credé's method of preventive treatment ; therefore

Resolved, That this association approves of any legislation which will make this method obligatory in all lying-in asylums and other institutions in this state supported partly or entirely by public funds.

Upon motion, it was also

Resolved, That it is the desire of the members of this association that the president appoint a committee to draft a proposition to present to the legislature on the subject of remedial legislation in regard to expert testimony and report at the next meeting.

The president appointed the following committee : Dr. Frederick Sefton, of Cayuga ; Dr. W. S. Ely, of Monroe ; Dr. Nathan Jacobson and Dr. Henry L. Elsner, of Onondaga, and Dr. A. A. Hubbell, of Erie.

The committee on juvenile insurance appointed at the last meeting rendered a majority report as follows :

After some inquiry and investigation, it has been unable to obtain any specific information that would lead us to believe that the said law of insurance does stimulate or foster crime.

The report was accepted and the committee discharged.

The officers elected for the ensuing year are : President, Dr. E. B. Angell, Rochester ; first vice-president, Dr. Wm. C. Krauss, Buffalo ; second vice-president, Dr. F. H. Stephenson, Syracuse. The secretary and the treasurer continue in office, their terms not having expired.

Upon motion, a vote of thanks was extended to the president and the secretary for their efforts in making the meeting a successful one.

THE MEDICAL SOCIETY OF THE COUNTY OF ERIE.

THE Medical Society of the County of Erie held its seventy-sixth annual meeting, January 12, 1896, in the rooms of the Buffalo Academy of Medicine.

The president, Dr. J. G. Thompson, of Angola, took the chair and opened the proceedings promptly at 10 o'clock. After the minutes of the semi-annual meeting had been read and approved, Dr. John Cronyn asked leave to correct an inaccuracy which appeared in Dr. Edward Storek's paper, as published with the annual report of the proceedings of the seventy-fifth anniversary

of the society, in relation to the organisation of the medical department of Niagara University. This was granted.

Dr. G. W. McPHERSON, chairman of the committee on membership, presented the names of the following applicants and recommended their admission to the society: Drs. Jane N. Frear, Frederick W. Hayes, Edward E. Koehler, Earl P. Lothrop, E. T. Rulison, A. E. Woehnert, Marion Marsh, Cora Billings Lattin and Henry W. Lattin. They were unanimously elected and subsequently those present were introduced.

Applications for membership were received from the following: Drs. Lorenzo Burrows, Jr., Samuel Outwater, Mary M. Huntley, J. Glen Ernest, F. W. McGuire and Felix Hintz. Referred to the committee on membership.

The president named as a committee on nominations, Drs. Wm. C. Krauss, G. W. McPherson, J. J. Walsh, W. M. Ward and E. Wende.

Dr. Edward Clark's report as treasurer was referred to an auditing committee, consisting of Drs. Wm. C. Phelps and Henry Lapp.

Dr. ERNEST WENDE, of the committee on a permanent home for the society, reported encouraging progress. The report was accepted and the committee continued. He also reported, at the request of the president, on the work done by the medical committee for the national G. A. R. encampment, to be held in Buffalo during the summer of 1897, and read a list of committee appointments.

Dr. COAKLEY, chairman of the board of censors, made a detailed verbal report on the work performed by the censors during the past year. He stated that no formal report had been prepared, as no violations of the state medical law had been referred to them for investigation. A number of cases, however, had been looked after. The first was referred to them by Dr. Edward Storck, who enclosed a circular of an alleged illegal practitioner. This man was found, however, to be a graduate of Bellevue Hospital some years ago, and to have registered in the county clerk's office in 1880. Another case from Brant, referred to the board by the president, was investigated, but the offending party suddenly disappeared. Two men on Broadway, who were charged with illegal practice, were found to be simply selling medicine. Another young man, who was charged with illegally practising, was found

to be a graduate of Buffalo University and otherwise legally qualified. The report was accepted.

Dr. BENEDICT said that under present restrictions less harm resulted from illegal practitioners in medicine than from those practising in a legal manner, but in violation of medical ethics.

Dr. COAKLEY said they could only reach such as are members of this society. An effort had been made to secure an amendment to the medical law, which would remedy this evil, but it was found that public opinion was not yet ripe for it.

The auditing committee reported having found the treasurer's accounts correct and, on motion, their report was accepted and the committee discharged.

On motion of Dr. KRAUSS, the usual sum of \$50 each was allowed to the secretary and treasurer for services.

Dr. LUCIEN HOWE offered the following resolution, which was adopted :

WHEREAS, The disease known as purulent ophthalmia of infancy produces about one-fifth of all the blind in asylums, and also more blind than any other disease, and

WHEREAS, The procedure known as Credé's method, is not only the most efficient means for preventing this disease, but when properly employed, reduces very greatly the percentage of such cases, therefore,

Resolved, That in the opinion of this society, Credé's method for the prevention of purulent ophthalmia, should be made obligatory in all public institutions.

The committee on nominations made the following report : For president, Dr. Henry R. Hopkins ; for vice-president, Dr. Hiram P. Trull, of Williamsville ; for secretary, Dr. Franklin C. Gram ; for treasurer, Dr. Edward Clark ; for librarian, Wm. C. Callanan ; for censors, Drs. John B. Coakley, C. E. Congdon, T. F. Dwyer, Irving W. Potter, Gustave A. Pohl ; for committee on membership, Drs. G. W. McPherson, John J. Walsh and W. W. Potter.

Dr. W. W. POTTER moved that the secretary cast the ballot of the society for Dr. Hopkins for president.

Dr. HOPKINS stated that he appreciated the great kindness and honor, but it would be impossible for him to accept and fulfil the requirements of the office. The society, however, entertained Dr. Potter's motion, which was carried amid applause.

A similar motion prevailed for the office of vice-president and the remainder of the ticket, when all the nominees were declared duly elected.

The committee appointed to look into the County Hospital matter had no report to make and was discharged.

PRESIDENT THOMPSON then called the vice-president to the chair and delivered his annual address on Surgery of the war of 1861-65.

On motion of Dr. CRONYN, a vote of thanks was given the retiring president for his address, as well as for the faithful performance of his duties, and a copy was likewise requested for publication.

On motion of Dr. COAKLEY that portion of the president's address requiring the action of the Society was referred to a special committee consisting of Drs. W. W. Potter, E. L. Bissell, W. H. Gail, D. W. Harrington, U. C. Lynde, T. M. Johnson and J. G. Thompson.

Dr. F. W. HINKEL read a paper on Earache, its significance and management; Dr. P. W. Van Peyma one on Albuminuria of pregnancy, and Dr. T. B. Carpenter one on Genito-urinary epithelium.

A vote of thanks was extended to the essayists and copies of their papers requested for publication in the BUFFALO MEDICAL JOURNAL.

Dr. KRAUSS stated that the Medical Society of Central New York would meet in Buffalo next October. On his motion an appropriation of \$50 was made, with which to entertain the delegates at luncheon, and a committee appointed with power.

The president appointed as such committee Drs. Wm. C. Krauss, F. C. Gram and Edward Clark.

The society adjourned at 1 P. M.

OXYGEN IN DIABETES.—To a man sixty years of age Ascoli (*Il Policlinico*) gave large quantities of oxygen each day for a little over three months. During this time the quantity of urine diminished, its specific gravity decreased, sugar was reduced to a small proportion and in two months entirely disappeared; three months later the sugar had not reappeared, although the patient had gone back to a diet of starchy foods. He also gained materially in weight.—*Med. Age.*

Correspondence.

DOUBLE UTERUS AND VAGINA.

ROCHESTER, N. Y., January 14, 1897.

To the Editor :

SIR—I wish to report an anomalous case, viz.: Miss L., 25 years of age, came to me complaining of painful menstruation, which came regularly every twenty-eight days and continued for five or six days. She had been treated by several physicians. On examination I found two well-formed uteri with cervixes perfectly normal, excepting a slight stenosis of the left cervical canal, two vaginæ, the left lying closely to the left wall, or in other words, collapsed, although perfect. The left uteri inclined to the left side so much so that I at first diagnosticated it as an enlarged ovary. She was wholly unconscious of her condition.

FRANK A. JONES.

155 LAKE AVENUE.

TREATMENT OF FECAL FISTULA.

WIGGIN, (*Med. Record*, October 24, 1896,) in a paper on above subject, said in case this mishap occurred and the opening was small with other favoring conditions operative measures might be postponed hoping the opening might heal spontaneously. If, however, the opening was large, above ileo-cecal valve, and large proportion of bowel contents escaped, operation was imperative. The histories of three cases were detailed. The operator laid stress upon (a) thorough disinfection of the parts, including interior of the bowel, with hydrozone; (b) closing intestinal opening when possible before breaking up peritoneal adhesions and opening the general cavity; (c) removal of any existing obstruction to the fecal current; (d) disinfection of the bowel surface with hydrozone before and after placing the sutures; (e) control of oozing from cicatricial tissue by same means; and (f) closure by single row of silk-worm-gut sutures without drainage of abdominal wound, after washing the peritoneal cavity with saline solution, some of which is allowed to remain.

Wiggin stated that he proved the value of hydrogen dioxide in 1893 as an effective antiseptic, which in proper solution does not irritate the peritoneum.

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EDITORS:

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

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No. 7.

THE RELATION OF DRINKING WATER TO HEALTH.

THE most important discussion to be brought before the Medical Society of the State of New York, January 26-28, 1897, is that on The relation of impure water to diseases and the cure and prevention of the latter. Important because it is timely—and should attract the attention of physicians as well as health authorities and sanitarians. The disease understood in this discussion is typhoid fever—perhaps as unnecessary a disease in highly civilised communities as any in our nosology. Typhoid fever is a disease due practically to carelessness, uncleanness and the want of proper sanitary regulations. Its continued presence is as inexcusable in a municipality as vermin in a modern dwelling, and indicates a degree of shiftlessness and apathy not consistent with American views and energy.

Water-borne and water-bred, typhoid fever stands in close relation with the necessities of every-day life, and yet all our efforts, thus far, have been to cure the disease, instead of preventing its appearance. Many cities in which this disease is prevalent take their water-supply from navigable streams, at one time free from contamination, but becoming polluted by the refuse disposal of rapidly growing cities or villages situated farther toward the source of these same water-courses. Were the water properly treated, it would become as innocuous as if it were in its pristine purity and this is one of the lessons yet to be learned by many communities. In the rapid growth characteristic of many of our cities, the question of adequate water-supply became one of the great and pressing needs for early consideration, and natural sources were selected, more with the view of supplying *quantity* rather than

quality of water. Even if these sources had been of unquestioned purity, the improper disposal of the city's sewage, through the stupidity or carelessness of the proper officials, would have exposed the water to contamination and rendered it in time dangerous and polluted.

Besides the chemist and bacteriologist, the water department of every city, whose supply is liable to contamination, should have the services of an engineer, whose fame does not rest upon his theoretical knowledge and bureaucratic propensities, but upon his practical information of the laws of hydrology and hydrodynamics. Such an one, well versed in the hydrography of his locality, could almost prognosticate the condition of his water-supply and be an important aid to the city's health department. As such he would be able to render the same valuable services as does the local forecaster in meteorology, and give warning several days beforehand of marked changes in the quality of the water.

While the chemist and bacteriologist are only able to detect impurities after contamination, the engineer could foresee these changes and give sufficient warning, or attempt to overcome the impending contamination before the city mains and reservoirs are filled with the poisonous liquid.

Just what a pure supply means is hardly open to much debate and may be summed up in five propositions, as follows:

(1) That the water-supply of any city or village should not in any possible way be liable to pollution or contamination from the sewage of any other community.

(2) That the sewage of a city should not be emptied into any water-course not having a current of three to five miles per hour, and then the sewage entrance should be at a distance one mile or more from the intake.

(3) When the water-supply of any city or village is a navigable stream, the water should be sand-filtered before being pumped into the city reservoirs or water-mains.

(4) That for ordinary drinking purposes, the water should not be taken in its primitive or raw state, but be either filtered, boiled, or distilled and aerated.

(5) That not only chemical, but bacteriological, examinations of the water should be made, at least once weekly, to determine its character as a safe or dangerous water for domestic use, and where contamination is shown to exist, the services of an engineer

be enlisted to detect, if possible, the cause and origin of such contamination.

We shall look forward to the publication of the discussion to be held at Albany with much interest, and with the expectation that it will lead to improvements on the lines indicated in these columns.

TOPICS OF THE MONTH.

THE superintendent of the streets of Buffalo, Mr. T. F. Maloney, is entitled to great credit for the manner in which he has dealt with the snow problem on Main street during the first part of the present winter season. With the first fall of snow he promptly put a force of men and teams upon the street and cleared out the bulk of snow that had fallen, leaving simply a thin coat to facilitate traffic; and this he followed up after each successive fall of snow, so that thus far our principal business thoroughfare has been kept in much better condition than usual in winter. This has the treble effect of facilitating traffic, furnishing employment to the needy and contributing to improve the health of the city. We have heretofore pointed out that one of the ways to prevent disease is to employ idle hands, and we are happy to note that our suggestions apparently have taken root in the minds of our municipal executive and administrative officers.

THE effect of good government in the city of New York is strikingly shown in the lowering of the death-rate for the last year, the credit for which must be awarded mainly to the efficiency of the health department and the department of street cleaning. It is an important fact to observe that these two departments go hand in hand in whatever results that are beneficial or harmful to the health interests of a city. In other words, it is important that these two branches of municipal government keep in close touch in order to maintain a high standard of healthfulness.

REFORMS in suppressing unnecessary noises are going forward in various cities. The district commissioners of Washington, D. C., announce that on and after February 1, 1897, newsboys must cease to shout their wares within the city limits on Sunday. This is one of the most commendable actions lately taken in any city. The nuisance is growing to be abominable. Between the early shoutings of local newspapers and the late afternoon crying of the New York

dailies, the streets of Buffalo are given over to intolerable noise on Sunday. It is quite time for the Police Department to interfere and suppress it.

Indianapolis, a city that has increased over 10,000 inhabitants within the past year, and has now grown to be one of the large cities of the land, has recently passed an ordinance prohibiting the blowing of tin horns or other noise-making instruments. An attempt was made to except holiday week and legal holidays, but this was voted down, and a fine not to exceed \$50 or thirty days' imprisonment, one or both, made the penalty. The examples of Washington and Indianapolis are worthy of emulation in Buffalo.

A STATUE of the late Dr. Samuel D. Gross, professor of surgery at Jefferson Medical College for twenty-six years prior to 1882, has recently been cast at Paris, and is expected to arrive in this country the present month. It will be erected on the grounds of the Smithsonian Institution at Washington.

The movement for the erection of this statue was begun by Dr. Claudius H. Mastin, of Mobile, who introduced a resolution in favor of the project at the meeting of the American Surgical Association, at Washington, September, 1891. Dr. Mastin was then president of the association and devoted a portion of his annual address to this subject.

Dr. Gross was one of the founders and the first president of the surgical association, hence this was a fitting place in which to take the initiative for so commendable a project. The statue is by Mr. A. Sterling Calder, a student of the art school of the academy of fine arts. Mr. Calder went abroad and modeled the statue in Paris, where it has been cast in bronze. Congress has appropriated \$1,500 for the pedestal, and the statue is to be placed near the army medical museum. This monument will be the second of the kind erected to a physician in this country, the other being that of Dr. J. Marion Sims, at New York. Both of these men were graduates of Jefferson Medical College, and among its most distinguished alumni.

The statue will be unveiled by a granddaughter of Dr. Gross next May, during the triennial congress of American Physicians and Surgeons at Washington.

IN THE street cars of Philadelphia there is a sign that reads, "Spitting on the floor of this car is prohibited, by order of the

board of health." In Boston a similar notice reads as follows : "The board of health adjudges that the deposit of sputum in street cars is a public nuisance, a source of filth, and a cause of sickness, and hereby orders that the spitting on the floors of street cars be, and hereby is, prohibited." Above this order is posted a copy of the statute that somewhat sententiously states that the fine for infringement of an order of the board of health is \$100. These official acts by the boards of health of Philadelphia and Boston, respectively, are indicative of a progress that is making along the lines of cleanliness and preventive medicine. If we mistake not, the propriety of similar action was first proposed by the health department of Buffalo, and we are pleased to see that other cities have even taken more decided action than we have yet been able to enforce or maintain here.

THIS JOURNAL is willing to accept subscriptions to the proposed monument of Pasteur, as indicated in our issue of August, 1896. Brigadier-General George M. Sternberg, M. D., surgeon-general U. S. Army, is treasurer. Dr. A. Dagenais, of Buffalo, has subscribed \$2.00, and we shall be glad to record and transmit the subscriptions of any others who may feel willing to contribute to this commendable object.

THE health department of the city of New York has lately made public a report of one of its committees with relation to the controlling of consumption. It is one of the most important reports that has been published on the subject and we call attention to some of its features. It states that there are now about 20,000 cases of pulmonary tuberculosis in that city, and that from thirty to fifty of its inhabitants daily become affected with the disease, one-half of whom die, and further that nearly all of those suffering death might be prevented by the application of scientific knowledge and sanitary regulations. It reviews the work done by the health department with the limited resources at its command, and declares that the time has now arrived when radical and comprehensive measures should be adopted to diminish the prevalence of the malady.

It further says that the knowledge now at command regarding the methods of extension of pulmonary tuberculosis, entirely justifies the belief that its ravages can certainly be limited by proper sanitary control and appropriate treatment, as can other infectious

diseases. It asks for more power to enable the health department to cope with the ravages of the dreaded malady, and adds that the health authorities are convinced that no other factor is so potent to-day in perpetuating that ominous death-list from pulmonary tuberculosis, as the lack of proper facilities for the care of the poor stricken with the malady. The report ably deals with the question of the necessity of providing a special hospital for the treatment of patients afflicted with this disease, and concludes with the following recommendations :

1. That such action be taken by the health board as seems necessary and proper to at once secure the provision of hospital accommodations, under its charge, for the care of the poor suffering from pulmonary tuberculosis, who, as active sources of danger to the community, may properly come under its supervision.

2. That an amendment be made to the Sanitary Code, declaring that tuberculosis be officially considered a communicable disease, and formulating regulations under which its sanitary surveillance shall be exercised.

3. That all institutions in this city which admit and treat cases of pulmonary tuberculosis be subjected to regular and systematic inspection by officials of this board, and that specific regulations be established for the conduct of such institutions, in accord with the proposed amendment to the Sanitary Code.

4. That the scope of the measures designed for the education of the people in regard to the nature of pulmonary tuberculosis, and the methods to be taken for its prevention, be enlarged and a closer sanitary supervision be maintained over individuals suffering from this disease in the densely populated tenement districts and in the crowded work-shops and public buildings of this city.

The report is signed by Herman M. Biggs, T. Mitchell Prudden and George B. Fowler.

General Emmons Clark, secretary of the health board, is quoted as having said that no immediate steps could be taken toward the erection of a hospital for consumptives, as the board of estimate had already made its appropriations for the year, and the passage of a legislative act will be required. The board will, however, he added, at its next meeting adopt an amendment to the sanitary code in line with the recommendations of the report.

THE antivivisectionists are carrying on a lively campaign in the halls of congress. The senate committee on the District of Columbia has issued a printed report to accompany senate bill 1552,

which consists of a brochure of pp. xxiv.—159. It is a document that furnishes some interesting reading, pro and con, on the subject of vivisection. The bill referred to has the deceptive title, "For the further prevention of cruelty to animals in the District of Columbia." The friends of vivisection believe that it is so adroitly worded as to very much cripple original laboratory investigations, both in the colleges and in the government department situated in the District of Columbia, and that if it should pass it will be made a wedge to secure similar and even more restricted legislation in the states and other territories.

One of the most dignified, scholarly and forceful protests against the passage of the bill is made by the Association of American Physicians, and is signed by the members present at the last annual meeting. It is one of the most attractive and readable papers that we have seen on the subject, and it would benefit, if not instruct, everyone who would read it.

Among others who write letters favoring the passage of the bill we note that Dr. W. S. Tremaine, of Buffalo, says that he has given this subject some study and is quite convinced that a great deal of vivisection is unnecessary and cruel. He hopes a bill will pass restricting it. Dr. J. H. Helmer, of Lockport, who has not practised medicine certainly for the last twenty-five or thirty years, but has devoted his time chiefly to banking, says "In the name of science great cruelties have been inflicted upon animals until it has become a fad in many cases."

In another column of the JOURNAL we print in full the protest of the American Association of Obstetricians and Gynecologists at its last annual meeting, Richmond, Va., September, 1896.

While it may be proper to regulate the practice of vivisection by law so as to prevent unnecessary and unwarranted cruelty to animals, we are of the opinion that any bill drawn, as is the one under present consideration, so that it may be capable of an interpretation that will embarrass scientific research, ought not to pass. Colleges and government departments should have unrestricted privileges in this matter, and only private individuals or corporations should be controlled by law.

THE New York Board of Education has appointed 150 physicians to act as medical inspectors, one for each school district in the city.

THE *Ohio Medical Journal* makes the following very pertinent comments on a subject that we commend to medical educators. It is such an interesting and temperate consideration of the question that we print it entire :

ETHICS IN OUR COLLEGES.

Some one has made the suggestion that each of our medical colleges should have a chair of ethics. In one sense the suggestion is a good one. Enough would be accomplished, however, if all our colleges taught ethics both by precept and by example. There is a noteworthy difference in the behavior of men coming from different colleges. The best schools turn out an occasional scoundrel, but the percentage of honorable men turned out by some institutions is much higher than that of the graduates of others. Some colleges seem to infect their students with a propensity toward quackery, while others communicate a noble spirit of ethical conduct. Every institution should include in the curriculum a short course of lectures on ethics delivered by a member of the faculty who is above duplicity, whose life bears out the high moral precepts which it becomes his duty to inculcate upon his classes. If there is no such man in the faculty, it is time that the institution was abandoned. At the same time, it must be admitted that no amount of moral education would prevent some young men from stepping aside into "ways that are dark and tricks that are vain." For this reason, every institution should adopt measures for ascertaining the intentions of its candidates for graduation, and carefully "pluck" those who aim at no higher position than that of the charlatan. It is usually not difficult to determine this point in time to protect the institution, as well as the profession, from the disgrace that is thrown upon it by every dishonest "quacking" barnacle that infests it. A majority of each class know the intentions of each of its members. A vote of the class would, in fact, often throw light upon the worthiness of its members, for no one feels more keenly the disgrace of a degree unworthily bestowed than do the better members of the class.

Obituary.

GENERAL FRANCIS AMASA WALKER, A. M., L. L. D., president of the Massachusetts Institute of Technology, died at Boston, January 5, 1897, aged 56 years. He was in good health up to the time of retiring on the evening of the 4th, but just before midnight he was stricken with apoplexy. Mrs. Walker was aroused by his hard breathing and sent for a physician, but the general died before

medical aid reached his bedside. Besides the widow, General Walker leaves five children, three sons and two daughters.

General Walker was born at Boston, July 2, 1840. He was the son of Amasa Walker, the eminent educator and political economist, and himself obtained conspicuous eminence in these fields. He graduated from Amherst in 1860, and then studied law, but entered the union army in 1861. In 1862, he became assistant adjutant-general on the staff of General Sumner, commanding the second army corps, on which duty he soon rose to the rank of Lieut.-colonel. He served in this capacity with the several commanders of the second army corps—Sumner, Couch, Hancock, Humphries—until his retirement from the service in 1865, at which time he was commissioned as brevet brigadier-general of volunteers for gallant service. General Walker was severely wounded in his left hand at Chancellorsville, from the effects of which he barely escaped lock-jaw, while his hand was ever after deformed and nearly incapable of prehensile power. After the war he performed editorial work on the *Springfield Republican*, and in 1869 took charge of the Bureau of Statistics at Washington.

In 1870, he was appointed superintendent of the ninth census, and for a time also performed the duties of Indian Commissioner during a temporary vacancy in that office in 1871. In 1873, he was appointed professor of political economy at the Sheffield Scientific School, and in 1881 was elected president of the Massachusetts Institute of Technology, which office he held from that time forward until his death. He also served as chief of awards at the centennial exposition in 1876, and was one of the United States commissioners at the international money conference in 1878. He was also superintendent of the tenth census, 1880-81.

General Walker was best known as a student of political economy, in which department of science he was recognised as authority and his treatise on that subject is in general use as a text-book. He was a strong advocate of international bimetallism from a scientific standpoint. General Walker's writings include his Political Economy, Money and its relation to trade and industry, The wages question, Land and its rent, (a reply to Henry George's Progress and Poverty), Money and the Indian question. He also wrote the History of the Second Army Corps, was a frequent contributor to the *Atlantic Monthly* and other magazines, and also contributed editorials to many of the leading newspapers. His statistical atlas of the United States and his

work on the ninth and tenth censuses have established his fame, far and wide, as an accurate statistician. General Walker was a companion of the Military Order of the Loyal Legion, and at one time commander of the Massachusetts Commandery.

General Walker's funeral was held at Trinity Church, Boston, at noon, Friday, January 8, 1897, at which were gathered distinguished citizens and intimate friends from all parts of the country. The demand for admittance was so great that the capacity of the church proved inadequate to accommodate the thousands who desired to attend the obsequies. Tickets were therefore limited to those who by reason of their official position or intimate association with the great man, whose memory they desired to honor, had claims that could not be overlooked.

Even the pupils from the Institute of Technology were limited to 100 members from each class and they filled the entire gallery.

Delegations were present from the National Academy of Sciences, Harvard College, the Worcester Polytechnic Institute, the Institute of Fine Arts, the public library, the Military Order of the Loyal Legion, the St. Botolph Club, the Commercial Club, the Delta Kappa Epsilon Fraternity, the American Historical Association, the American Statistical Association, Wellesley College, the English Bimetallic League, the Round Table Club, the Municipal League of Boston, the Board of Aldermen and Common Council.

Although in deference to the wishes of the family there was no suggestion of a military funeral, 1200 students of the Institute of Technology escorted the remains from the residence, on Beacon street, to the Church, with the senior students at their head.

Among the honorary pall-bearers were :

Governor Wolcott, Mayor Quincy, Professor Asaph Hall, of the National Academy of Sciences ; Hon. William Endicott, Jr. ; President Merrill E. Gates, of Amherst College ; Dr. George J. Brush, Yale University ; President Eliot, of Harvard University, and Colonel John S. Hazard, of the Military Order of the Loyal Legion.

Rev. E. Winchester Donald and Rev. William Dewart officiated.

The casket was borne down the aisle by student bearers and the honorary pall-bearers. It was covered with wreaths and flowers. The Episcopal service for the dead, without eulogy, was the extent of the ceremony.

It was an impressive sight as the choir sang O, Paradise, and the vast congregation rose while the body was borne from the church, escorted by Governor Wolcott, Mayor Quincy and the other honorary pall-bearers. Outside the church there stood many people with uncovered heads as the funeral cortege drove away to the last resting place at Mount Auburn.

The death of General Walker is more than an ordinary loss. His field of usefulness was wide, his judgment was mature and his opinions valuable, and he was the type of a man that can ill be spared at this juncture. His talents were such as to peculiarly fit him to aid in the solution of monetary and economic problems. It was the good fortune of the writer to know him well—years ago even intimately—and he esteems it a duty, be it never so sad, to place on record this slight tribute to his old companion in arms and comrade of the second army corps.

DR. WILLIAM H. PANCOAST, of Philadelphia, died at his residence, 1100 Walnut street, in that city, January 5, 1897, aged 63 years. The immediate cause of his death was pneumonia, although he had been somewhat enfeebled for a long period. Dr. Pancoast was a native of Philadelphia, where he was born October 16, 1835, and he was the son of Dr. Joseph Pancoast, the eminent anatomist, who for half a century occupied a foremost place in medical science in the United States. Dr. Pancoast, Jr., was educated at Haverford College, from which he received the degree of A. B. in 1853. He graduated from Jefferson Medical School with the degree of M. D. in 1856. After spending some years in the leading universities of London, Paris and Vienna, he returned to Philadelphia in 1859, when he was appointed one of the trustees of Charity Hospital and became a member of the surgical staff of that institution. In 1865, he was appointed demonstrator of anatomy at Jefferson, in which capacity he served with great credit for twelve years. Upon the resignation of his father, Dr. Joseph Pancoast, in 1874, William H. was appointed to fill the vacancy thus created in the chair of anatomy at Jefferson. He held this place until 1886, when he resigned and went abroad for a period of rest. Soon after his return he became president of the board of trustees of the medico-chirurgical hospital then lately established. He became professor of clinical and anatomical surgery in the medico-chirurgical college, which place he held until his death. He was a

public-spirited citizen and a great lover of his native city. Foremost in all that pertained to art and science, he became a well-known figure at meetings of that character as well as an active participant in medical societies, local, state and national. He was a companion of the Military Order of the Loyal Legion. His funeral was largely attended by his professional colleagues, men of science, public officials and citizens.

DR. ALONZO CHURCHILL, of Utica, died recently at the advanced age of eighty-six. Dr. Churchill had been in active practice for more than fifty years. He served as medical officer during the late civil war and was left at Savage's Station, Va., in 1862, to assist in caring for the wounded that accumulated during the seven days' battles round Richmond, when the Army of the Potomac was retiring to Harrison's Landing.

Dr. Churchill was a capable physician and a useful citizen, whose courtly manners distinguished him as a gentleman of the old school, a type now rapidly disappearing.

Society Meetings.

THE Lake Erie Medical Society held its regular meeting at North Collins, Thursday, January 14, 1897. The following papers were presented: (1) *Mania a potu*, by Dr. S. S. Bedient, Little Valley; discussed by Drs. Beals, Deck and Putnam. (2) Whooping cough, by Dr. J. Cherry, Eden; discussed by Drs. Davis, Rugg and Lattin. (3) Notes on post-graduate work, by Dr. B. S. Bourne, Hamburg; discussed by Drs. Ward, Holden and Coss. (4) Treatment of Pott's disease, by Dr. W. J. French, Hamlet; discussed by Drs. Teft, Thompson and Robbins.

The officers are: Dr. A. D. Lake, president, Gowanda; Dr. N. E. Beardsley, vice-president, Dunkirk; Dr. W. W. Jones, secretary and treasurer, Dayton. Program committee, Dr. W. M. Ward, North Collins, and Dr. T. T. Clohessy, North Evans.

THE Medical Society of the County of Chautauqua held its regular semi-annual meeting at Fredonia, Tuesday, January 12, 1897. There was a large attendance and the program was carried out

with one exception—Dr. Parmenter, of Buffalo, telegraphed his inability to be present. A profitable discussion was held upon the papers, and a large number of clinical cases were reported. The next meeting of the society will be held on the second Tuesday of July, at Chautauqua, at which time a banquet will be given in the evening.

THE Buffalo Academy of Medicine held meetings during the month of January as follows :

Section on Medicine.—Tuesday evening, January 5th, program : Comparative prevalence of insanity, by Dr. H. G. Hopkins ; Heredity as a cause, by Dr. William C. Krauss ; Newer pathology, by Dr. H. G. Matzinger ; Symptoms of incipient insanity, by Dr. James W. Putnam ; State care of the insane, by Dr. Floyd S. Crego ; Prognosis of insanity, by Dr. Arthur W. Hurd ; Newer methods of treatment, by Dr. Harry A. Wood. A case of syringomyelia was presented by Dr. Crego.

Section on Surgery.—Tuesday evening, January 12th, program : Surgical treatment of perforating typhoid ulcer, by T. M. T. Finney, associate professor of surgery, Johns Hopkins Hospital, Baltimore ; Discussion from a medical standpoint, by Dr. Charles Cary ; Discussion from a surgical aspect, by Dr. M. Hartwig ; The history of bleeding, by Dr. James W. Putnam ; Presentation of cases by Dr. Herman Mynter.

Section on Pathology.—Tuesday evening, January 19th, program : Exhibition of specimens ; Large aneurism of the aorta, by Dr. De Lancey Rochester ; Other specimens by Dr. E. P. Lothrop and Dr. H. E. Hayd.

[THE JOURNAL went to press before the meeting of January 25th.]

THE Tri-State Medical Society of Iowa, Illinois and Missouri will hold its fifth annual meeting at St. Louis, April 6, 7 and 8, 1897. A large number of valuable papers will be read. Dr. Joseph Price, of Philadelphia, will hold the surgical clinic, Dr. James T. Whitaker, of Cincinnati, the medical clinic, and Dr. Dudley Reynolds, ophthalmic clinic. Dr. G. Frank Lydston, of Chicago, will entertain the members with an original story during one of the evening sessions. The officers are : Dr. A. H. Cordier, president, Rialto Bldg., Kansas City ; Dr. Hugh T. Patrick, 1st vice-president, Chicago ; Dr. H. C. Eschbach, 2d vice-president, Albia, Ia. ; Dr. G. W. Cale, secretary, 4403 Washington boulevard, St. Louis ;

Dr. C. S. Chase, treasurer, Waterloo, Ia. The preliminary program will be issued soon.

THE Medical Society of the County of Westchester held its one hundredth annual meeting at Yonkers, on Wednesday, January 20, 1897. The gathering partook of the nature of a centennial anniversary. There was a large attendance of physicians and many valuable papers were read. The meeting was held under the presidency of Dr. Archibald M. Campbell, of Mt. Vernon. Dr. William M. Carhart, of Peekskill, read a paper on The importance of early correction of refractive errors of school children; Dr. Charles McBurney, of New York, read a paper on Appendicitis. After dinner had been served, Mayor Peene made an address, and then Dr. Daniel Lewis, of New York, president of the state board of health, addressed the society under the title Stamping out tuberculosis: how to solve the problem. Dr. A. T. Banning, the coroner of the county, and Dr. Edward F. Brash, both of Mt. Vernon, took part in the discussion.

This very successful anniversary meeting was arranged under the supervision of Dr. E. M. Morrell, of Yonkers, chairman of the committee of arrangements, who received a vote of thanks for his successful labors.

The Medical Society of the County of Westchester was organised in 1797, and is, therefore, the oldest county society of the state.

Personal.

SIR JOSEPH LISTER, the eminent English surgeon, whose name is always associated with the application of antiseptic principles to surgical procedures, was raised to the peerage by the Queen on the first day of the new year. This is the first occasion, according to the *British Medical Journal*, on which a member of the medical profession has entered the house of lords, and we agree with our English contemporary that the profession of medicine could not wish or expect for a representative more able or distinguished. Sir Joseph's American friends will all unite in congratulations upon his elevation to the peerage and in the wish for his continued health and prosperity.

DR. ELIZABETH BLACKWELL, who, at the age of seventy-five, has lately published a book of autobiographical notes, entitled *Pioneer Work in opening the medical profession to women*, was the first woman to receive a medical diploma from any medical college in this country or Europe. Though she is a native of England, she is an American by adoption, having taken her degree and pursued the greater part of her medical practice in this country.

DR. ALEXANDER C. ABBOTT, professor of hygiene at the University of Pennsylvania, has been appointed chief of the bacteriological division of the bureau of health at Philadelphia, in place of Dr. B. Mead Bolton, resigned. It will be remembered that Dr. Abbott read a paper last winter before the Buffalo Academy of Medicine, that was published in the *JOURNAL* for March, 1896.

DR. CHAUNCEY P. SMITH, of Buffalo, has been appointed by Mayor Jewett a member of the Municipal Civil Service Commission, vice Dr. H. E. Hayd, resigned. A pressure of professional business prevents Dr. Hayd from longer holding the office in which he has served for several years. The appointment of Dr. Smith is to be commended.

DR. GUY L. McCUTCHEON has left Buffalo to make his home in Oil City, where he will take up the practice of medicine. His many friends in Buffalo will be sorry to part with him, and all wish him every success in his new field.

DR. W. E. DIGNEN, of Buffalo, is now in Berlin. Since leaving Buffalo, he has spent some time in London and Paris.

College and Hospital Notes.

THE Bellevue Hospital Medical College building at New York, situated upon the hospital grounds, was very nearly destroyed by fire Wednesday morning, January 20, 1897. Frank Murphy, the gatekeeper of the hospital, discovered the flame at five o'clock and rang an alarm, after which he hastened to the hospital office and gave notice of the fire. No person was in the college when the flames were discovered, but a number of hospital attendants and

the men employed at the morgue aided the firemen and policemen in saving valuable books and documents. The dispensary, in the basement of the building, was saved from serious damage, but the upper part of the structure was burned out completely. The valuable records, protected in safes on the first and second floors, were preserved. The lecture room and auditorium in the third story were completely wrecked, and the dissecting room was burned out, including much material in use by the anatomical classes. After the fire was extinguished many books from the library were removed to the hospital office for preservation.

The building was erected in 1865, and the damage by this fire is estimated at about \$20,000, besides the loss of instruments, specimens in the museum and furniture, which will probably increase the total loss to \$30,000, which is only partly covered by insurance.

The fire presumptively arose from a defective electric light wire. It is stated that the building will be repaired as speedily as possible. Meanwhile the lectures are being conducted at the Carnegie laboratory. Dr. Austin Flint, secretary of the faculty, has announced that the fire would not interfere with the work of the college.

Although the glare of the flames of the burning building was visible in several of the hospital wards, there was no alarm among the 755 patients. All the physicians, orderlies and attendants of the hospital were soon on duty in the wards, and every precaution was taken to prevent a panic. Even in the insane pavilion, which was nearest to the burning building, the patients remained on their cots and were not frightened. Much credit is due to the officers in charge for discreet management on this trying occasion.

THE board of directors of the Pennsylvania society for the prevention of tuberculosis has secured a suitable site for the proposed new state sanitarium for the cure of consumption. The site is situated near White Haven, in Luzerne county, within close proximity to Glen Summit, and covers an area of nearly 600 acres.

A committee consisting of Dr. H. M. Anders, Dr. Samuel G. Dixon, Miss Redfield, James L. Stanton and Dr. S. Solis-Cohen has been appointed to raise the sum of \$15,000 for the erection of the necessary building.

Book Reviews.

MEDICAL JURISPRUDENCE, FORENSIC MEDICINE AND TOXICOLOGY. By R. A. WITTHAUS, A. M., M. D., and TRACY C. BECKER, A. B., LL.B., and a staff of collaborators. In four royal octavo volumes. Volume IV., Toxicology. New York: William Wood & Company. 1896.

The fourth and final volume of this work is devoted to the exclusive consideration of toxicology and is by one of the editors, Prof. R. A. Witthaus, M. D., whose writings and teachings are well known to the medical and legal professions. He has often been summoned as an expert witness in important trials before the courts, and has frequently succeeded in solving most difficult problems in forensic medicine.

This treatise begins with a historical introduction, which possesses great interest for the student, and which is accompanied with an extensive list of bibliographic references. General toxicology is then taken up and is considered under various heads in the next 145 pages. Witthaus is most interesting in this division, and especially under the section, absorption of poisons, in which we find much of value to every physician who would understand the methods of action of corrosives and poisons, as well as methods of the elimination of poisons. A knowledge of the proper treatment of poisoning should be the privilege or duty of every physician in active practice, and in this section will be found a vast storehouse of information on that subject. All, too, who are likely to be called into the courts must study carefully the evidence in cases of murder by poisoning, and the duties of physicians in cases of poisoning. There are several other important subdivisions that are considered in this section and which, as a whole, we deem the most exhaustive that has ever been published.

Special toxicology is now taken up and occupies the next 100 pages. This section includes dissertations on corrosives, such as mineral acids, fixed mineral alkalies, ammonium hydroxide and carbonate, and the halogens, chlorin, bromin and iodine. Witthaus states that the halogens are four elements—namely, fluorin, bromin, chlorin and iodine,—that exist in compounds more or less allied to or resembling sea salt, but that fluorin, although probably one of the most corrosive, has no practical toxicological interest, owing to exceptional conditions necessary for its liberation. The subdivision, iodine, furnishes interesting reading, even for those who are not specially attracted to the general subject of toxicology. It is here stated that the so-called colorless tincture of iodine contains no free iodine, but triethylamin, ethyl, iodide and ammonium iodide, along with alcohol and some free ammonia. It will thus be seen that this preparation is next to valueless as an external application.

Mineral poisons next engage attention and occupy the following 300 pages of the book. We are impressed all through this

section with the careful and painstaking character of the author's work, but find it inexpedient to discourse upon it at length. If a physician desires to obtain an exhaustive dissertation upon any one of the mineral poisons, he will find it here embodied and most learnedly set forth. Especially do we commend the subdivision relating to arsenic.

Coming now to the vegetable poisons, 234 pages are here absorbed in their treatment. Here again we find the same exhaustive, painstaking application made in discoursing upon the conditions that frequently engage the practising physician, sometimes as the result of innocent overdosing in the vain attempt to urge therapeutics to a limit beyond their resources; or again from idiosyncrasy toxic results ensue from medicinal doses, all of which is most masterfully considered in this section. Especially do we find absorbing interest in what Witthaus says regarding opium and its preparations. Taken altogether perhaps opium poisoning is more common than any other and should be studied with care by all physicians. There is no better setting forth of its various phases than in this work.

Animal poisons, such as poisonous foods, occupy attention in the next ten pages; and synthetic poisons are also considered in the following ten pages, which conclude the treatise.

Then follows a table of cases referred to in the volume and finally an elaborate index. This volume is a fitting conclusion to a great work that will always stand supreme in the literature of medical jurisprudence. It is a treatise that will become renowned for its classic research and for its exhaustive treatment of the subjects which it considers.

A TREATISE ON OBSTETRICS. For students and practitioners. By EDWARD P. DAVIS, A. M., M. D., Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic; Clinical Professor of Obstetrics in the Jefferson Medical College of Philadelphia. In one octavo volume of about 600 pages, with 217 engravings and thirty full-page plates in colors and monochrome. Cloth, \$5.00; leather, \$6.00. Philadelphia and New York: Lea Brothers & Co., Publishers. 1896.

If another work were needed on obstetrics at this time we know of no one more competent to prepare a practical treatise than this author. The favorable reception given his obstetric manual indicates that a more complete and elaborate treatise will be received by the profession with favor.

After a short introduction the author presents the subject of pregnancy and labor, to which he devotes thirteen chapters. In the first one, obstetric diagnosis is considered; in the second, differential diagnosis of pregnancy; in the third, diagnosis of advanced pregnancy. We like this classification of obstetric diagnosis, and find in the text much that may be regarded as belonging to newer methods. Many questions relating to this part

of the subject are exceedingly trying to the beginner and he should have definite and explicit teaching in regard to the differential diagnosis in early as well as late pregnancy. In both states questions of great importance arise, but of widely different natures.

The origin and growth of the ovum and the development of the germ is considered in the next chapter; and in chapter five the growth and development of the embryo is presented. Davis explains these intricate subjects with a rare clearness that will be of advantage to students. The physiology of pregnancy next occupies attention; and in chapter seven follows a consideration of the pathology of pregnancy. This, as might be expected, occupies considerable space, as it is one of the most important subdivisions of this section. If we had time and space to analyse this chapter it might prove of exceeding interest, but far better will it be for obstetric physicians to read the author's original text. The toxemia of pregnancy is well considered both as to its prevention and cure, while minute directions are given for examining the urine with reference to the presence of toxins and the amount of urea eliminated.

Normal labor and its management is taken up in chapter eight, which is unusually interesting in its condensed details. Since by far the larger proportion of labors are normal, it is essential that a full understanding of the natural process should be well understood in order that departures from the health line may be sharply drawn and promptly recognised. Coming immediately after this subject, the author presents for our consideration abnormal labor in chapter nine, the cranium presenting; in chapter ten, the face presenting and its management; in chapter eleven, the breech presenting. The management of head-last labors is one of the most interesting fields in obstetric practice, for in it is afforded an opportunity, generally speaking, for the display of obstetric skill and judgment. When the obstetric physician has successfully dealt with the after-coming head and saved two lives without impairment of future health to either, he has accomplished a professional feat that entitles him to credit.

Labor resulting in the impaction of the fetus, or what may be termed impossible labor, is briefly considered in chapter twelve, and in our view has not been accorded as much elaboration as is consistent with the subject. The complication of pregnancy with fibroids is not an uncommon condition and sometimes requires the most skilful application of obstetric science. This section of the book closes with chapter thirteen, which is devoted to the consideration of multiple pregnancy.

In the next section the pathology of labor is taken up and the first chapter presents the subject of its induction. This is a branch of the obstetric art that requires peculiar skill and judgment to conduct in the proper manner, since the methods that are applicable to one condition may not be equally safe and advantageous in another; in other words, the deliberate induction of labor in a

deformed pelvis previously planned for by consultation is one thing, and the induction of labor as a sudden immediate expedient, made necessary by unheralded eclampsia, is quite another.

Abnormal labor pains furnish the subject for the second chapter; hemorrhage, including placenta previa, the third; eclampsia, the fourth; sudden death during labor, the fifth; labor complicated by disproportion between the pelvis and fetus, the sixth; labor in large pelves, the seventh; in contracted pelves, the eighth; in deformed pelves, the ninth; in cases complicated by tumors, the tenth; and finally septic infection is discoursed upon in the last chapter, the eleventh of this section.

Obstetrical operations form the subject of section three, to which the usual consideration is given. Beginning with episiotomy and the suture of perineal rents, next comes the consideration of the forceps, and then follow in their order version and extraction, symphyseotomy, Cesarean section, Porro's operation, embryotomy, and obstetric curettement, or operative emptying of the uterus.

The next section, four, is devoted to the consideration of abortion, extrauterine pregnancy, and the puerperal state. Under this head are included the repair of laceration of the cervix caused by labor, repairs of injuries to the pelvic floor and the perineum; insanity and nervous disorders accompanying the puerperal state and lactation.

Sections five and six relate to the infant. Infancy in health and disease forms the subject of section five, and the diseases of infancy that of section six. The final section of the book, seven, is devoted to the consideration of the jurisprudence of obstetrics. This last is really an interesting department, one frequently omitted in obstetric treatises, but one upon which every obstetric physician should have ample information.

A well-prepared index closes this valuable treatise. We believe it will take rank among the best, and is more than likely to be a popular text-book with students. The illustrations are numerous, largely original and many of them of admitted excellence.

A MANUAL OF OBSTETRICS. By W. A. NEWMAN DORLAND, A. M., M. D., Assistant Demonstrator of Obstetrics, University of Pennsylvania; Instructor in Gynecology in the Philadelphia Polyclinic, etc. Octavo, pp. 760. Illustrated. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

At the first glance at the title of this book one is led to inquire, Is there a necessity for another obstetric manual? Judging by the number already at hand and especially of the popularity of King's that has so long held sway, the answer is tempted to be in the negative. But if one cares to pursue the subject further, and examine into the special plan of this work, he will be led to lend approbation to its existence.

It is constructed on the basis of a combined clinical, physiologic and pathologic work, which is a rational way in which to

present the subject. While it is an agreeable fact to contemplate that most labors are physiologic, yet there is on the other hand as civilisation advances an apparent increase of pathologic pregnancies and deliveries. It behooves a man who offers his service as an obstetrician at this time to master the whole subject from pathologic, physiologic and clinical standpoints, and to be able to detect early that kind of a labor in which scientific aid will be required.

If pathologic labors are diagnosticated sufficiently early most of them could in general be led to a happy conclusion. The old dogma of meddlesome midwifery is not satisfactory to the modern obstetrician. If, however, he is called upon to act, he must have a reason for his action, and not be groping in the dark as to what his duty may be in a given case.

Young men will derive much benefit from the study of this manual, and will in it find many aids to a higher cultivation of the obstetric art, as well as a stimulus to acquire a better understanding of the responsibilities attaching to its practice.

The style of the book is that of the uniform edition of Saunders' new aid series and it is well printed and admirably illustrated.

MINOR SURGERY AND BANDAGING. By HENRY R. WHARTON, M. D., Demonstrator of Surgery in the University of Pennsylvania. New (third) edition. In one 12mo volume of 594 pages, with 475 engravings. Philadelphia: Lea Brothers & Co. 1896.

Two editions of this excellent work have already been commented upon in the JOURNAL. The first was put forth in 1891, and within the brief period of five years the third now presents itself. We expressed ourselves in decided terms as to the value of this little work on both former occasions, stating that it was in our judgment one of the best books of its kind extant. It has been thoroughly revised in this edition, bringing it forward to the present period. It should be borne in mind that the text covers considerably more than its title would indicate; that is to say, in addition to ample details concerning minor surgery it gives valuable instructions regarding fractures, amputations, resections, trephining, operations on nerves and tendons, tracheotomy, laryngotomy, intubation, operations on the kidney and colon, lithotomy and osteotomy.

But most important of all in our view is the section on bandaging. Here Wharton has distinguished himself beyond any other author, whether in regard to text or illustrations. While the text itself is clear, the illustrations are so perfect, most of which are half-tone reproductions, that it is difficult for the novice to be misled in regard to the application of any sort of bandage to any part of the body for any purpose known in the domain of surgery.

The first part of the work comprising 108 pages is devoted to this subject, and if it stopped here it is well worth the price asked by the publishers, but special bandaging instructions are again

given under appropriate heads, as fractures, dislocations and injuries. We repeat that Wharton has done the profession of medicine incalculable service, especially students and junior members of the profession, in preparing this work, and we have no doubt that it will continue to be appreciated, and that this edition will be exhausted quite as soon as the others have been. It, too, is one of the handsomest made-up books that has come to our table in many a day.

A HANDBOOK OF PATHOLOGICAL ANATOMY AND HISTOLOGY. With an introductory section on Post Mortem Examinations and the Methods of Preserving and Examining Diseased Tissues. By FRANCIS DELAFIELD, M. D., LL. D., Professor of the Practice of Medicine, College of Physicians and Surgeons, Columbia College, New York, and T. MITCHELL PRUDDEN, M. D., Professor of Pathology and Director of the Laboratories of Histology, Pathology and Bacteriology, College of Physicians and Surgeons, Columbia College, New York. Fifth edition. Octavo, pp. viii.—846. Illustrated by 365 wood-engravings, printed in black and colors. New York: William Wood & Co. 1896.

The fifth edition of this standard work will be welcomed by students of pathology and histology throughout the universe. We have heretofore in these columns expressed our opinion in considerable detail of the value of the treatise, and a perusal of this edition does not induce us to modify those opinions except to further accentuate them and to increase, if it were possible, their cogent force.

In this work may be obtained that important knowledge essential for the making of autopsies, the preservation of tissues as well as their preparation for microscopic study, and the outlines of methods of study of pathologic microorganisms. The authors, too, have described concisely the lesions of infectious diseases, including, as far as known, the microorganisms concerned in their causation, as well as the various phases of degeneration and inflammation, the character of tumors, the special lesions of different parts of the body, of general diseases, of poisoning, and of violent deaths. These, too, have been illustrated whenever or wherever pictures could be made available to elucidate the text.

In this edition all sections of the book have been revised, and some of them rewritten to a considerable extent, in order that they may embrace recent contributions to pathological and histological science. Many new engravings also have been added and the section on the blood has especially received elaborate attention at the hands of Dr. James Ewing. This work has been a leading textbook in most of our medical colleges since it first appeared, and it is so familiar to physicians and students that we need only accentuate the fact that the fifth edition is the most satisfactory general treatise on the subjects with which it deals that we have knowledge of, and it will of necessity command a constantly increasing sale.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M. D., New York City. In twenty volumes. Volume VII., Diseases of the Respiratory Organs and Blood, and Functional Sexual Disorders. New York: William Wood & Company. 1896.

The contributors to this volume are Charles W. Allen, of New York, who writes on functional disorders of the male sexual organs; Jules Comby, Paris, who discourses upon rachitis; Charles Green Cumston and Ernest W. Cushing, of Boston, who have prepared a section on disorders of menstruation; James M. French, Cincinnati, who tells us of the chemical and microscopical examination of the urine; E. Fletcher Ingals, Chicago, who has prepared the section on hay fever; E. Main, Paris, who is the author of the dissertation on diseases of the diaphragm; Franz Riegel, Giessen, who writes on asthma, and Herbert B. Whitney, Denver, who discourses exhaustively on diseases of the pleura. The latter subject, comprising 126 pages, opens the volume and is followed by asthma, 55 pages, hay fever, 25 pages, diseases of the mediastinum, 12 pages, diseases of the diaphragm, 14 pages, diseases of the blood, 300 pages, rachitis, 35 pages, disorders of menstruation, 30 pages, functional disorders of the male sexual organs, 58 pages, chemical and microscopical examination of the urine, 120 pages.

The usual excellent index closes the volume, which makes the series complete up to and including Volume VIII., which latter was issued out of its regular order; the next volume will therefore be Volume IX. We have heretofore expressed an opinion of the character of this massive treatise and need not here repeat it. The reputation of the authors of the several monographs is a sufficient guaranty of their excellence. Whoever desires to have the latest literature for reference in his library will be sure to subscribe for this comprehensive encyclopedic group of books.

A MANUAL OF CLINICAL DIAGNOSIS BY MICROSCOPICAL AND CHEMICAL METHODS. For students, hospital physicians and practitioners. By CHARLES E. SIMON, M. D., late Assistant Resident Physician Johns Hopkins Hospital, Baltimore. In one octavo volume of 504 pages, with 132 engravings and ten full-page colored plates. Cloth, \$3.50. Philadelphia and New York: Lea Brothers & Co. 1896.

This treatise enters a new field of authorship; not but that the importance of clinical chemistry and microscopy have been well known, but it is a curious fact that they have been either imperfectly or illy applied. The physicians in general practice have considered themselves either too busy or too indolent to make use of the methods treated of in this book, but it is now quite time that a change were made in regard to the diagnosis and treatment of disease. It is essentially necessary that a physician should have a laboratory where he may make microscopie and chemie analysis of the fluids and tissues of the body, and if he cannot attend to

the matter himself he should employ a laboratory assistant for that purpose. Accurate diagnosis leads to exacter, better and more successful methods of treatment.

Simon clearly points out the importance of chemic and microscopic methods in diagnosis, and he tells how to apply them. The plan of his work is to devote a single chapter to each fluid or class of fluids. For instance, the blood takes up the first chapter; secretions of the mouth the second, gastric juice and stomach contents the third, the feces the fourth, sputum the sixth, the urine the seventh, and so on to the end. Some of the chapters are exhaustive, especially those relating to the blood and the urine. On the other hand the nasal secretion is dismissed with a single page, which will appear almost scandalous to the average laryngologist.

The book all through portrays an experience with the subject, and no doubt the author has given the most consideration to those branches of it which he deems the most important. The illustrations are especially to be commended for their excellence, some of which are quite new and are in colors. The appendix is an ample key to the text and the book taken all together is one of the most valuable contributions to the literature of medicine in 1896.

A TEXT-BOOK OF DISEASES OF THE NOSE AND THROAT. By FRANCKE HUNTINGTON BOSWORTH, A. M., M. D. Illustrated with nearly 200 engravings and seven full-page chromo-lithographic plates. New York: William Wood & Company. 1896.

The author of this treatise is well known to the medical profession. His name has been conspicuous in literature and he has been recognised as authority on many subjects connected with this department of medicine. His recent treatise on the nose and throat, in two volumes, was reviewed in the *JOURNAL*, Vol. XXIX., p. 449, and Vol. XXXII., p. 452, at which times our opinion was expressed regarding it in considerable detail.

The present work is mainly a condensation of the one alluded to in the foregoing paragraph, which had been found too voluminous for the use of students. Therefore, the author has thought best to prepare this volume, which is designed especially for the use of both general practitioner and student. In this volume he has eliminated those parts of the former work which were of value only for reference. He has also added some new material, but in all essentials this single volume is the same as the larger edition, with the proviso that Bosworth has brought his observations forward on technical questions, so as to embrace the immediate present. The illustrations, especially in the early chapters, are such as to give the beginner such aid and information as he most desires. The mechanical execution of the book is excellent and the colored plates are graphic. The final section on external surgery of the throat is especially notable as containing advanced thoughts and

methods on that subject. We think the author has been wise in reducing his treatise to one volume, which is now ample in size and in wealth of contents to meet the requirements of those whom it is especially intended to serve.

A MANUAL OF PHARMACOLOGY AND THERAPEUTICS. By WILLIAM MURRELL, M. D., F. R. C. P., Physician to, and Lecturer on, Pharmacology and Therapeutics at the Westminster Hospital, etc., etc. Revised by Frederick A. Castle, M. D., Member of the committee for revision and publication of the Pharmacopœia of the United States of America, etc., etc. Octavo, pp. 516. New York: William Wood & Co. 1896.

The science of pharmacology has progressed within the last few years so that it may be considered fairly well abreast of its cognate branches, materia medica and therapeutics. We generally find the two latter grouped together in one treatise, but in the work before us we find pharmacology and therapeutics linked together by one author and treated in a single work. The author states that his treatise is an abstract of lectures delivered at the Westminster Hospital, and that it is adapted primarily to the requirements of students preparing for examination. The American editor, Dr. Castle, has revised and rearranged the material, so as to avoid repetitions, economise space and adapt it to the use of Americans. Additions have been made treating of climate and natural mineral waters as a therapeutic aid, and the writings of Dr. Arthur H. Nichols, of Boston, and Geo. E. Walton, of Cincinnati, have been drawn upon liberally in this department. The American editor has made many valuable additions to the text, which he has included in brackets for the sake of identification. One of the features of the work that will appeal to young men is the publication in it of an extensive list of formulæ or prescriptions.

We can commend the book for its general scientific value and for its special adaptation to the requirements of students. It also has many features of interest to practitioners, especially those pertaining to climate and mineral waters, to which we have referred.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By ROBERTS BARTHOLOW, M. A., M. D., LL. D., Professor Emeritus of Materia Medica, General Therapeutics and Hygiene in the Jefferson Medical College of Philadelphia, etc., etc. Octavo, pp. 866. Ninth edition, revised and enlarged. New York: D. Appleton & Co. 1896.

This favorite treatise is before us again for consideration. The eighth edition appeared in 1893, and its early exhaustion indicates a continued demand for the work. We have often told our readers of its excellencies, but do not feel called upon again to state in detail what they consist of. No practitioner of medicine, during

the last twenty years, has been unfamiliar with the name of Bartholow or with his writings and teachings on the subject of *materia medica* and therapeutics. He has been for many years considered one of the ablest therapeutists of the country, and his treatise has been used in most of the colleges since it first appeared.

It is perhaps needless to state that additions and alterations have been made in the present edition, that serve to bring it forward to the period of its issue. It will be found especially rich in its account of synthetic remedies, which are being produced with such rapidity and in such increasing numbers. Bartholow has selected those which in his judgment appear to be best suited to the requirements of physicians, and has described them with scientific detail.

The indexes of the work are especially to be commended. We avail ourselves of this opportunity to express our gratification at the restoration of its distinguished author to health, which at one time seemed almost improbable, and we congratulate him on the resumption of his life-work with all the apparent old-time forcefulness.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology and Dermatology, and specially prepared articles on treatment. By professors and lecturers in the leading medical colleges of the United States, Germany, Austria, France, Great Britain and Canada. Edited by JUDSON DALAND, M. D., (Univ. of Penna.) Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania; Assistant Physician to the Hospital of the University of Pennsylvania, etc.; Fellow of the College of Physicians of Philadelphia. J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician to, and Lecturer on, the Principles and Practice of Medicine at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary, etc. Volume III. Sixth series. 1896. Octavo, pp. xii.—344. Philadelphia: J. B. Lippincott Co. 1896.

Another volume of this interesting series is before us, though like some of its predecessors in the series it contains some material that possesses very little value.

The attempt has been made apparently on the part of a number of young men to creep into this series for the purpose of advertising themselves. Some system of selecting authors should be devised which would prevent any except experienced and recognised teachers from publication in these volumes. On the other hand, most of the material is of an excellent order and deserves high commendation. We desire, however, to enter our protest against such names as "Bartholonitis." Let us get rid of our old personal nomenclature and not manufacture any more.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA, at its Forty-sixth Annual Session, held at Harrisburg, 1896. Volume XXVII. Published by the Society. Wm. B. Atkinson, M. D., Secretary. Philadelphia: The Edwards & Docker Co., Printers. 1896.

The annual transactions of this state society always furnishes an interesting and valuable contribution to the literature of medicine; especially is it among the best society transaction volumes constructed within the limits of state lines. Well-published transactions of a working medical society are now more important than ever. Every society should have a complete record of its work, in order that it may be at all times accessible for reference when required. Such a record, too, furnishes an important link in the historical chain of the profession of medicine in the state in which made.

The volume before us contains many interesting papers and indicates a high order of standard among the profession of the Keystone state. A very valuable paper appears on the history of the medical society of the state of Pennsylvania, by Dr. Wm. B. Atkinson, secretary. This contains a brief synopsis of each meeting from the organisation of the society down to the present time.

A TEXT-BOOK OF MATERIA MEDICA, THERAPEUTICS AND PHARMACOLOGY. By GEORGE FRANK BUTLER, Ph. G., M. D., Professor of Materia Medica and Clinical Medicine in the College of Physicians and Surgeons, Chicago; Professor of Materia Medica and Therapeutics, Northwestern University, Women's Medical School; Attending Physician to Cook County Hospital, etc. Octavo, pp. 858. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

The wealth of literature on materia medica and its cognate departments, therapeutics and pharmacology, that has been issued during the past year is further increased by the addition of the treatise described in the above title. The object of the work, according to the author, is to supply the student with a practical text-book adapted for permanent reference, as well as for the requirements of the class-room. Butler further states that the arrangements embodying the synthetic classification of drugs, based upon therapeutic affinities, he believes to be the most philosophical and rational, as well as that best calculated to engage interest in the study of the subject.

From a reasonably careful examination of this work we are prepared to affirm that the author has not made unjust claims in regard to the value and importance of the bases that he has adopted in constructing his treatise. It brings before the student a clear, concise and truthful account of each drug, and presents it in a manner calculated to impress the memory. Moreover, it is divested of unnecessary verbiage, and contributes, from the manner of its presentation, to make a subject that is usually dry more attractive and studiable.

The pharmaceutical section of the book has received the special attention of the author, and this increases the importance and value of the treatise. He has enumerated and described only such drugs as experience has proved to be of value and that are accepted in general practice, omitting untried remedies or those of doubtful efficiency. Even official drugs that either have dropped entirely out of use or are next to never employed have been eliminated.

Butler has treated poisonous drugs under two heads,—namely, untoward action, and poisoning, a classification that is both helpful and new. He has adopted the medicinal nomenclature of Foster, and has paid attention to pronunciation and accent, that are both so necessary for the physician of education to observe. He has also taken pains to preserve forms that will be useful in writing prescriptions, carefully observing the Latin genitive, which is so often disregarded by busy practitioners of medicine. We have endeavored to point out a few of the excellencies of this treatise, but there are many others that must be discovered by the owner after he purchases it.

PRACTICAL NOTES ON URINARY ANALYSIS. By WILLIAM B. CANFIELD, A. M., M. D., Lecturer on Clinical Medicine, University of Maryland, etc. Second, revised, edition. The Physician's Leisure Library. Detroit: George S. Davis. 1896.

We have heretofore spoken of this little work in considerable detail in these columns, and now upon the appearance of the second edition little remains to add excepting to call attention to the fact that certain changes and additions have been made in order to bring it forward to the most modern standard of requirements. In fact, the author says that he has thoroughly revised and corrected the entire edition.

Canfield starts off with a chapter on the general character of the urine which is both interesting and scientific. The second chapter on the normal constituents of urine begins with urea, which is the most important product of decomposition of the albuminous bodies. He gives minute directions for its test that are practical and as simple as possible. Uric acid, oxalic acid and indican are the remaining organic constituents. Next follows the inorganic constituents of the urine, such as chlorides and phosphates; these are briefly though adequately touched upon. The abnormal constituents of the urine are taken up in the third chapter, the first one of which is albumin. This is the one that will attract the attention of the beginner perhaps more than any other substance. It, however, has ceased to have the significance in its relation to kidney diseases that it formerly possessed, and here is where the skill of differentiation is brought to the test.

The next important abnormal constituent considered is sugar. As a transitory condition this, too, may have little significance, but when more lasting it is indicative of that dreaded disease, diabetes melitus. Tests for sugar are admirably given in this

treatise. Blood, pus and bile next follow and are briefly and intelligently discoursed upon. Sediment is considered in chapter sixth, and this is really one of the most interesting sections of the work. Detailed directions are given for the microscopical differentiation of sedimentary products. Then comes the urinary diseases in chapter five, reagents, chapter six, and finally the order of analysis in chapter seven, which closes the book and a convenient index is added. This is one of the most helpful brochures on the practical analysis of urine with which we are familiar.

THE MEDICAL AND SURGICAL USES OF ELECTRICITY. By A. D. ROCKWELL, A. M., M. D., formerly Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital, etc. Octavo, pp. xvi.—612. Illustrated with 200 engravings. New York: William Wood & Co. 1896.

This treatise is in reality a successor to, or the ninth edition of, Beard and Rockwell's well-known treatise on the medical and surgical uses of electricity. Dr. Beard has long been dead, and the last edition of the joint work was published in 1892; hence it is fitting that a revision should take place. Dr. Rockwell has undertaken the task of rewriting the book, condensing it in places and adding much to it in others, so that it is now brought down to the immediate present and includes among its latest suggestions the surgical application of X-ray photography.

The first part of the book is devoted to the consideration of electro-physics, in which all sorts of electrical apparatus is described in detail. In the next, electro-physiology is considered, and nine chapters are presented in which the effect of electricity on different parts of the body is described. The next section, electro-therapeutics, consisting of thirty-two chapters, presents the treatment of various diseases to which electricity is considered applicable. Finally, in a section of eight chapters, electro-surgery is dealt with, which is one of the most interesting departments in the book. It is in this section that the application of the Roentgen rays is developed.

The work is practically a new one, although it is in another sense well known to the profession through its distinguished author. Every one who is interested in the application of electricity to medicine or surgery will find it inconvenient to do without this book, as it contains much material not to be found elsewhere. It is handsomely printed and bound, and its price is reasonable.

BOOKS RECEIVED.

Transactions of the American Surgical Association. Volume the fourteenth. Edited by De Forest Willard, A. M., M. D., Ph. D., recorder of the association. Printed for the association. For sale by Wm. J. Dornan, Philadelphia. 1896.

Artificial Anesthesia. A manual of anesthetic agents and their employment in the treatment of disease. By Lawrence Turnbull, M. D., Ph. G., Aural Surgeon to the Jefferson Medical College Hospital, Philadelphia; late Honorary President to the Otological Subsection of the British Medical Association, and of the Section of Laryngology and Otology of the American Medical Association. Fourth edition, revised and enlarged, with illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1896.

Over the Hookah. The tales of a talkative doctor. By G. Frank Lydston, M. D., Fellow of the Chicago Academy of Medicine, the Southern Surgical and Gynecological Association, and the American Academy of Social and Political Science; Professor of Criminal Anthropology in the Kent College of Law; Member of the American Medical Association, and the Association of Military Surgeons of the United States; Honorary Fellow of the Texas Medical Association, etc. Illustrated from the author's designs, by Mr. C. Everett Johnson. Chicago: Fred Klein Co. 1896.

Autoscopy of the Larynx and the Trachea. (Direct examination without mirror.) By Alfred Kirstein, M. D., Berlin. Authorised translation (altered, enlarged and revised by the author,) by Max Thorner, A. M., M. D., Cincinnati, O., Professor of Clinical Laryngology and Otology, Cincinnati College of Medicine and Surgery; Laryngologist and Aurist, Cincinnati Hospital, etc. With twelve illustrations. One volume, crown octavo, pp. xi.—68. Extra cloth, 75 cents net. The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street, Philadelphia; 117 W. Forty-second street, New York; 9 Lakeside Building, Chicago.

A Guide to the Clinical Examination of the Blood for Diagnostic Purposes. By Richard C. Cabot, M. D. With colored plates and engravings. \$4.75. New York: William Wood & Co. 1897.

Anomalies and Curiosities of Medicine. Being an encyclopedic collection of rare and extraordinary cases, and of the most striking instances of abnormality in all branches of medicine and surgery, derived from an exhaustive research of medical literature from its origin to the present day, abstracted, classified, annotated and indexed. By George M. Gould, A. M., M. D., and Walter L. Pyle, A. M., M. D. Imperial octavo, 968 pages, with 295 illustrations in the text and twelve half-tone and colored plates. Prices, cloth, \$6.00 net; half-morocco, \$7.00. Sold only by subscription. Philadelphia: W. B. Saunders, 925 Walnut street. 1897.

The Diseases of Infancy and Childhood. By L. Emmett Holt, A. M., M. D., Professor of Diseases of Children in the New York Polyclinic; Attending Physician to the Babies' Hospital and to the Nursery and Child's Hospital, New York; Consulting Physician to the New York Infant Asylum and to the Hospital for Ruptured and Crippled. Illustrated with nineteen full-page colored photogravure plates and 185 cuts inserted with the text. Sold only by subscription. Prices, cloth, \$6.00; sheep, \$7.00; half-morocco, \$7.50. New York: D. Appleton & Co., Publishers, 72 Fifth avenue.

Report of the Commissioner of Education for the year 1894-95. Volume II., containing Parts II. and III. Washington: Government Printing Office. 1896.

Two Health-seekers in California. By William A. Edwards, M. D., Fellow of the College of Physicians of Philadelphia, etc., etc., and Beatrice Harraden, author of *Ships that Pass in the Night*, etc. Philadelphia : J. B. Lippincott & Co. 1897.

Miscellany.

VIVISECTION IN THE DISTRICT OF COLUMBIA.

AT THE Richmond meeting, September, 1896, of the American Association of Obstetricians and Gynecologists, Dr. Thomas E. McArdle, of Washington, D. C., offered the following preamble and resolutions :

The American Association of Obstetricians and Gynecologists, assembled in annual session at Richmond, Va., September 22 to 24, 1896, desires to present to the Congress of the United States a protest against the passage of Senate Bill 1552.

WHEREAS, The enactment into law of the specified bill would greatly interfere with and retard the investigations that are at present being conducted at Washington by the laboratories connected with the Marine Hospital, the offices of the Surgeon-General of the United States Army and Navy, and the Bureau of Animal Industry of the Department of Agriculture ; and

WHEREAS, The results of their investigations have been of immense importance to the health and wealth of the people of the country ; and

WHEREAS, More brilliant results are promised for the near future in connection with preventive medicine and the health of men and animals ; therefore, be it

Resolved, That this Association protests against the proposed legislation by Congress, which has for its object the restriction of animal experimentation in the District of Columbia ; and, while opposing needless cruelty upon animals in the public schools, this Association considers that those who are trained in the special line of research necessary for the conduct of the work referred to are the persons best able to decide upon the advisability and utility of animal experimentation, and should not be hindered in the prosecution of their humane work. Be it further

Resolved, That a copy of these resolutions be sent to the members of the House and Senate of the United States Congress and also to the President of the United States.

The resolutions were unanimously adopted.

THE Robinson Thermal Bath Cabinet, which is advertised in our columns, commends itself to everyone who needs hot air or medicated baths. It is a simple, effectual and economical method of administering thermal baths for many diseases, and when used under the advice of a competent physician cannot fail to give satisfaction. The attention of physicians is invited to this subject and the Robinson Thermal Bath Company is anxious to receive calls from physicians and to furnish any information desired.

Literary Notes.

THE *Canadian Journal of Medicine and Surgery*, published at Toronto, made its appearance among our exchanges with the beginning of the new year. It is a very creditable first number and bespeaks the capability and enterprise of its editors. Its editorial staff consists of Drs. W. A. Young, J. J. Cassidy and E. Herbert Adams. It also announces a long list of department editors.

THE *Medical Compend*, of Toledo, accentuated the close of its tenth year of publication by issuing, in December, 1896, an enlarged and illustrated number, containing portraits of its editorial staff and collaborators. It was an interesting edition, that bespoke the enterprise and prosperity of our excellent contemporary.

It is announced that the *Tri-State Medical Journal* and *The General Practitioner*, of St. Louis, will be consolidated under the name *Tri-State Medical Journal and General Practitioner*. Dr. James Mooers Ball, by purchase, has secured the control of both journals and will edit the magazine as consolidated.

THE *American Medical Journalist* is the name of a new monthly that began its existence with the new year. It appears to be owned, edited and published by Charles Wood Fassett, Esq., the enterprising medical publisher, of St. Joseph, Mo., and the secretary of the American Medical Publishers' Association. The first number is an extremely handsome specimen of magazine making and it deserves to succeed, if conducted on the lines of this specimen. Its subscription price is \$1.00 a year—no exchanges, no free list.

LATE PERSONAL.—Albany, Jan. 22.—The State Civil Service Commission announces the appointment of Dr. Percy Bryant, of Buffalo, as medical superintendent of the Manhattan State Hospital. Dr. Bryant is now first assistant physician at the Buffalo State Hospital.

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Original Communications.

SURGERY OF THE WAR, 1861 TO 1865.¹

By J. G. THOMPSON, M. D., Angola, N. Y.,

Late Surgeon 77th Regiment, New York Volunteers.

PROGRESS in surgical science, during the war, was in the line of technique in operative procedures, improvement in surgical dressings, adaptations of dressings to the exigencies of individual cases, whether designed for immediate permanent location in hospitals or for transportation over rough roads for long distances to permanent hospitals, and in the organisation and conduct of hospitals, both field and general, and in the general care of the wounded.

The hustle and bustle incident to active campaigning, and the scarcity of medical books and periodicals and of appliances for scientific research, were adverse to the rapid development of new theories and facts, so characteristic of recent investigations.

The great number of autopsies, however, gave opportunity for the study of pathology, of which the Medical and Surgical History of the War gives evidence.

The personnel of the volunteer surgeons, and especially of the assistant surgeons, composed largely of recent graduates, might not have been quite up to the highest standard of proficiency, and it gives cause for regret that those brave soldiers, who so patriotically volunteered to defend our sacred institutions, should have become the victims oftentimes of inexperienced surgical work.

I have to congratulate myself, however, that the victim of my first amputation is now an honored citizen of Saratoga, and has been twice elected to the Assembly from that district.

During the progress of the war, system in operative surgery in the field and hospital arrangements were perfected, and the operations were principally done by skilled surgeons with competent assistants, selected by the chief surgeons of divisions from those of

1. President's address, delivered before the Medical Society of the County of Erie, January 12, 1897.

regimental officers, whose ability to do the work properly he could vouch for. The operating staff was under his constant supervision, and any proving incompetent were returned to their regiments and others assigned to their places.

The work in general hospitals was done principally by regular surgeons, United States volunteer surgeons and assistant surgeons, commissioned by the President after having been confirmed by the Senate, having no command, but under the orders of the surgeon-general, with rank and pay of regimental surgeons and assistants respectively. These were, many of them, of high professional standing, and made records worthy of themselves.

The greater part of the reports embodied in the surgical history of the war was written by these surgeons, the medical officers in the field having little time or opportunity to make full reports; besides they were not able to continue observation of their patients, they being removed to general hospitals as soon as the exigencies of the service required it.

Amputations were the most frequent capital operations done, 29,980 being recorded; and in the technique of this class of operations, army surgeons were in the advance. The flap operation was the most commonly used and the circular next. Several modifications of these methods were proposed and quite extensively performed.

In the *Surgical History of the War*, Vol. III., page 723, in one of my reported cases, I partially describe a modification of the ordinary flap operation, which I always considered original with myself, and which I used commonly. Later I find it mentioned in *Agnew's Surgery*, Vol. II., page 305, as his method. It is done by cutting down to the deep fascia with the scalpel, making the outlines of the flaps, dissecting back those divided tissues one-quarter to one-third the way, evenly, from the angles to the extremities of the flaps, and with the catling cutting the anterior muscular flap from without inward, and the posterior from within outward, each to the line of dissection. A circular sweep of the catling, and peeling back the periosteum one-half inch, prepares the way for the retractor and saw. This I consider an ideal flap operation, avoiding the redundancy of muscles, cutting the vessels more squarely across, and giving better margins for perfect coaptation of the flaps.

It was customary with many surgeons, when time permitted, to leave the cut surfaces exposed to the air for twenty minutes or more, to become seared or glazed over, before approximating them,

experience teaching that this gave greater percentage of primary unions and less secondary hemorrhage. This taught us that we could not be too careful in securing all bleeding points before closing wounds in which we desired union by first intention. We infer also from this experience that the great carrier of infection is not common air.

Water dressings were almost universally used, because all experience up to that time was vastly in their favor. I am happy to say, however, that occasionally surgeons observed that wounds did well with dry dressings, when water was not obtainable, despite the lack of aseptic methods and antiseptic paraphernalia. Antiseptics were hardly known and little used, except chlorine and charcoal, and perhaps permanganate of potassa, for cleansing foul ulcers and suppurating and gangrenous wounds, with copperas and chloride of lime for disinfecting purposes. Few large wounds healed without pus formations. Exfoliation of bone, secondary hemorrhage, pyemia, septicemia and reamputations were of frequent occurrence. Surgical fever was expected after all capital operations. Its degree was not recorded, because clinical thermometers were not a part of the surgeon's armamentarium at that time.

Animal, sterilised and antiseptic ligatures were not in use, silk being almost universally adopted for ligatures and sutures. Ligatures were left long and brought out at the lower angle of the wound, knots being tied in those securing large vessels, to distinguish them in removal, which was done from the third to the tenth day, by pulling or twisting. Large wounds were frequently closed with adhesive plaster. While a prisoner in the Wilderness, without a supply of silk, I used linen and cotton thread for ligatures and sutures, and wounds did fairly well with them.

The worst enemy we had to fight while prisoners was the maggot. These insects would unavoidably get into the wounds, and soon you would discover a purple line, an inch or more from the margin of the flaps. No time was then to be lost in opening up the wounds, dropping in a little chloroform, covering all for a short time with the hands, after which a dash of water dislodged every vestige of the colony. Nothing else being available for that purpose, the mother of invention directed chloroform, and its action was perfect.

Most of the fractures were compound and comminuted, and required firm dressings for transportation in ambulances, and often

in army wagons. Plaster-of-paris dressings subserved the purpose well, and were extensively used at field hospitals. Wire splints—notably Smith's anterior—were much in use for suspending the limb and as a firm support in transportation.

The invaluable cracker box was one of the institutions of the army, useful for splints as well as for tables, seats and other tent furniture. It was also used to mark the resting-place of our fallen comrades, who were not embalmed and sent home for interment. In the general hospitals all the valuable devices and appliances known to surgical science at that time were furnished by the government, and generally used.

Sterilisation of instruments, sponges and dressings was not thought of, and the germ theory was not born. Septicemia was recognised, but that the cause of many, if not all, septic infections may be traced to bacteria was hardly "dreamed of in our philosophy." Admitting the germ theory to be the Alpha of etiological science, the alphabet is long; when shall we reach the Omega? It was considered better surgery, when hemorrhage from a wound demanded it, to open the wound and ligate the offending vessel, than to go above and ligate the main trunk, and experience taught that shot wounds often did better when laid freely open. Wounds from conical balls were most frequent and most severe, from the fact that their course is direct and they destroy everything in their track, while round balls are often deflected by fasciæ, and do not penetrate so deeply.

Excision of bones, during the first years of the war, was done quite extensively, the theory of surgeons being to save all the limbs possible. This theory, and consequently the practice, was materially modified as the war progressed, and more discretion was used in selection of cases for resection. The fact became pretty well established that excisions of bones of the upper extremities were attended with good results, giving useful limbs, while those of the lower extremity were not so successful, many of them resulting in nonunion, great shortening of the limb, and frequently followed by secondary amputations. A few selected cases did well when only a small section of the bone was removed, but extensive resection of the bones of the leg or thigh, and especially of the knee-joint, proved disastrous.

With the exception of the elbow, excision of joints showed a greater mortality than resection of bones immediately above the joints. In the upper extremities the percentage of excisions in

gunshot fractures was 11.6 per cent.; in the lower extremities, 3 per cent. The fatality of excisions, in the whole series of cases reported, exceeds that of amputations 1.7 per cent.

Thirty cases of plastic operations were reported, with material improvement in most of them. No skin grafting cases were reported. Hermetical sealing of chest wounds was a procedure advocated by Assistant Surgeon Benjamin Howard, U. S. A., who was given extensive opportunities to test its merits, but without the success which the advocates of the operation had hoped. The external wound was dissected clean, and its edges approximated and sealed with lint and collodion. Invasion of the abdominal cavity, for the reparation of gunshot wounds of the contained viscera, was rarely practised, the opium treatment, pushed to the fullest tolerance, being the custom.

Anesthetics were used in 80,000 instances. The latest estimate of the number of cases in which chloroform was used gives 76.2 per cent. of the total number; ether, 14.7 per cent.; and a mixture of chloroform and ether, 9.1 per cent. Total deaths reported from chloroform, 37; from ether, 4; chloroform and ether mixed, 2. These statistics and estimates give the greatest proportionate percentage of deaths from chloroform, with ether next, and chloroform and ether mixed least.

It was the practice of most surgeons to save as much of the limb as possible. Statistics prove that this was not the best practice. Amputations through the upper third of the leg, as reported, show a fatality of 27 per cent.; of the middle third, 20.6 per cent.; and in the lower third, 27.6 per cent. Amputations through the middle third of the thigh, arm and forearm also show less fatality than through the upper and lower third. Primary amputations gave best results, those performed after thirty days next, and intermediary, or those performed during the inflammatory stage, gave far the greatest fatality.

To the Surgical History of the War, prepared under the direction of the surgeon-general by eminent army surgeons, I am indebted for the statistics and many of the conclusions summarised in this paper.

The three volumes of Surgical History of the War, together with the three Medical, should be in every physician's library. This history is valuable, not only for the vast amount of medical and surgical statistics, and the detailed experience of many of the most eminent surgeons of that time, but as a memorial to the brave

patriots who dared death for the cause they loved, teaching those who were not participants in the bloody conflict the lesson of the terrible carnage of the war.

As the supply of published editions is exhausted, I would recommend to this society, which takes the initiative in many good works, that a committee be appointed to draft a suitable memorial to Congress, to be presented through our representatives, for the publication by the government of another edition of this valuable work, which shall be ample for all physicians who desire it, and that we use our best endeavors, through our delegates to state and national societies, to secure their coöperation for the accomplishment of this purpose.

TWO CASES OF FRIEDREICH'S ATAXIA.¹

By F. H. STEPHENSON, M. D.,

Neurologist to Woman's and Children's Hospital, Syracuse, N. Y.

THE following two cases of Friedreich's ataxia, whose history I will present, came under my observation through the courtesy of Dr. H. C. Merwin, of Cicero, N. Y. They are sister and brother, aged respectively six and ten years. These cases are interesting, not alone because of their rarity, only about 200 being recorded, but because of their relationship and their resemblance in certain symptoms, as well as because of their marked difference in other prominent symptoms; yet each patient presents enough points which are typical of Friedreich's ataxia to verify the diagnosis :

CASE I.—John M., aged 10 years; has had none of the usual diseases of infancy and childhood, except occasional attacks of indigestion and frequent colds. At birth he was apparently healthy and well developed. He was a very restless infant, but no peculiar symptoms were noticeable until he was two years of age. At that time he began to walk, which, of course, was later than the usual period. He used his arms and limbs in a very irregular and uncertain manner. He was unable to hold articles or to coördinate his arms and hands, and he constantly stumbled. Walking did not improve, as would have been the case in a child of normal development.

When he attempted to talk, which was also late, he articulated very indistinctly and with apparent difficulty. Mental development

1. Read at the twenty-ninth annual meeting of the Medical Association of Central New York, October 20, 1896.

was retarded, although he developed physically as rapidly as other children of his age.

Present Condition.—He is well nourished and looks healthy, but has a dull, heavy expression, except when attempting to do anything. On questioning him, it is plainly seen that his mentality is far below that of the average child of his age. He has never been able to attend school, and forgets quickly what he has been taught, although he appears to appreciate all that is said to him. There is a mumbling articulation and great difficulty in enunciation, which at times is explosive and blurred. Spasticity and hyperextension are well marked in the hands and arms. When walking he reminds one of a mother hen protecting her brood, as is shown in Photograph No. 1. There is also marked incoördination and over-action of the arms and fingers when using them, and it is with great difficulty that he can pick up anything from the floor, as shown in Photograph No. 2. This may be due, in part, to fear of falling, as he easily loses his balance when standing or walking. He presents a shambling and uncertain figure, slightly leaning to the left; this is probably due in part to a developing scoliosis with the convexity to the right.

On attempting to arise from a stooping to an erect position, he climbs up himself, so to speak, taking hold of his limbs in different places, reminding one of a patient affected with pseudo hypertrophic paralysis. There is marked swaying of the body during these motions.

The cranium presents several indentations; one especially is quite marked over the anterior fontanelle. There is slight but plainly marked ptosis; the pupils, though sluggish, respond to light and accommodation; the outlines are normal and there is no mystagmus. His palate is high-arched. The teeth are irregular, jagged and rapidly decaying.

He staggers and easily falls, cannot balance himself on one foot, and sways when standing with the eyes closed and arms extended. There is adduction of the feet, which he keeps well separated, and an inclination to stand on the outer side of the foot; also a partial fixation of the joints and prominence of the outer ankle bones, showing a beginning talipes, as is seen in Photograph No. 3. The plantar reflexes are present; the knee reflexes are very slight in the right limb and scarcely perceptible in the left. Hyperextension of the fingers and toes at the phalangeal articulations is frequently observed, though not constant. There is no hyperesthesia or anesthesia, but there is rectal and vesical incontinence. We have thus a defective coördination of wide extent.

CASE II.—Mary, aged 6 years; apparently healthy at birth, but as she developed showed a nervous, excitable temperament. She was easily startled and exhibited a coarse tremor from head to foot. It was not

constant, though increased on exertion or excitement. No marked psychical change.

She articulates quite distinctly and appreciates readily everything that is said. She did not walk or talk until over two years of age. The movements of her arms do not coördinate well.

There is a staring, frightened expression of the eyes ; no ptosis, but well-marked mystagmus ; the pupillary reflexes and outlines are normal ; the vision is good. Her teeth are irregular, jagged and decaying. Her gait is decidedly ataxic or swaying, though not so rolling and uncertain as that of her brother. The knee and wrist jerks are nearly absent ; plantar reflexes present ; no hyperextension of joints or sensory disturbances. She has both rectal and vesical incontinence, though the sphincters are better controlled than in Case I. There is no scoliosis (Photograph No. 4).

The parents are apparently sturdy people, of the agricultural class, aged 40 and 47 years. The father has a well-marked neuropathic constitution. There is no history obtainable of either syphilis or epilepsy. One brother and uncle were very immoral and erratic individuals ; one great-uncle is insane ; the grandmother is a healthy woman of advanced age. Neither she nor her daughters present any history or symptoms of nervous instability or other constitutional infirmities. On the maternal side there is a history of phthisis in the first and second generations removed. The father and grandfather were intemperate. The homes of this family and of the ancestry on the paternal side have always been in a malarial district.

Our patients have an older sister, aged twelve years, a child of average intelligence, who thus far presents none of the symptoms of Friedreich's ataxia. Her condition will be watched with great interest, as she is approaching the age when we most frequently observe the development of this disease. The fourth and last child born in this family was hydrocephalic, and died at birth.

The variation in the symptoms of the two cases presented does not seem anomalous when we regard the anatomical changes which have been found, post mortem, in Friedreich's disease, showing a different location in the points of degeneration or sclerosis. In Case I. the intellect was duller, articulation more blurred in character, ataxia of both upper and lower extremities more marked, scoliosis further advanced, knee-jerks absent or diminished, and beginning foot deformity ; while in Case II., mystagmus, tremor and ataxia were the prominent symptoms. In Case I., probably, the sclerosis in both the lateral and posterior columns is nearly equal, so there is a diminution of the knee-jerks, instead of an exaggeration or complete abolishment ; but in time, as the pos-

FIG. 3.



FIG. 1.



FIG. 4.



FIG. 2.

terior columns are more involved, the knee-jerks will probably disappear.

Pathological changes in the lateral columns alone probably account for the exaggerated reflexes sometimes reported in those cases whose history otherwise simulates Friedreich's ataxia. The early period of development of ataxia in these children attracts attention, as a majority of the cases reported by careful statisticians give the age of development at about twelve years. I saw, in London, one family of seven children afflicted with Friedreich's ataxia, their ages ranging from seven to twenty-five years, their average age of onset being about twelve years. Two were so helpless that it was necessary to strap them in their chairs. Their limbs were contracted and mottled in appearance; lateral curvature, mystagmus and hump-foot were prominent in all, except the youngest child, whose only symptom was an ataxic gait. None of their ancestry or relatives were similarly affected, nor were there histories of other neurotics in their family. The only factor was alcoholism.

Etiology. —The family history of my cases shows, as before stated, a neurotic temperament on the one side and a history of alcoholism and phthisis on the other, no other neuroses having been found. Possibly malarial poisoning may have had a toxic effect. The causes given are probably sufficient for the development of the condition of degeneration.

It is well known that the disease is progressive, although it is frequently stationary for years, and cases are reported where temporary improvement has been observed by the employment of Sayre's suspension apparatus. Patients affected with this disease are rendered more helpless after other illnesses or injuries, and they should therefore be well protected.

The larger number of cases reported are in America. Of the sixteen autopsies reported, the principal lesions are found in the medulla and spinal cord, the latter, according to Pitt, Ancher, Menzel, Dana and others, being imperfectly developed, slender and sometimes flattened; the primary degeneration beginning in the lumbar region and extending upward and downward; the sclerosis existing in the posterior, lateral and postero-median columns, rarely in the anterior. The crossed pyramidal tracts in the lateral columns, as well as the cerebellar and ascending antero-lateral tracts, are often sclerosed.

The changes in the brain tissues, outside of the medulla, do

not seem of sufficient importance to occasion the symptoms observed. The anterior and posterior nerve roots are sclerosed, the peripheral nerves degenerated.

Recent observers claim the pathological change is a gliosis of the posterior columns, due to developmental errors, or, according to Déjerine, a neuroglial sclerosis, quite unlike the ordinary spinal sclerosis.

ANCHYLOSTAMUM DUODENALE, WITH REPORT OF CASES.

By F. G. MÖHLAU, M. D., Buffalo, N. Y.

BEFORE referring to the cases of this disease that recently came under my observation, I deem it not out of place to give a short outline of the peculiarities of this parasite. The study of this nematode is of the utmost importance in medical practice, on account of the great destruction it is apt to produce by leeching out the blood of the intestinal tract when once it has therein gained entrance. It resembles the oxyuris vermicularis, but is still more like the trichinæ intestinalis. One parasite, the anguillulum intestinalis, not infrequently occupies the small intestines alongside with the anchylostamum. Their resemblance is great, their eggs are much alike, and therefore require close study. For their difference I would refer to the text-books. It has a round body, resembling that of the worms mentioned, the head-end has a mouth-like process, which is armed with chitin teeth. To this the tractus intestinalis is attached. The length of the parasite is varying, the male being smaller than the female; the eggs are oval in shape, also varying in size, the average measure being about .03 mm. in size and covered with a fine shell. The process of segmentation is permanently going on, and is very easily watched, especially so if the feces are placed in an even and warm temperature.

The picture of the disease produced by the parasite has been described as early as 3,450 years ago, in a work of Papyros Ebers by name. The parasite itself was discovered by Angelo Dubini, in Milan, in 1838. Von Sieboldt gives a good description of it. Somewhat later, in the year 1851, it was recognised by Von Griesinger as the true cause of the Egyptian chlorosis. Everywhere we find reference made to this parasite whenever there is spoken of epidemics of chlorosis, principally if we hear of such epidemics in southern or warm climates. The finding of several cases in a very short time

makes me think that the disease is occasionally found in northern states. It is not as rare as spoken of in Dr. Pepper's text-book of Theory and Practice of Medicine, 1895, Vol. II., page 883. He writes: "So far, no observations have been made in this country, but it is possible the disease exists in some of the Southern States." The not finding of the parasite in Northern America seems to me rather due to the infrequency of chemical and microscopical examination of feces by the general practitioner. If laborers are afflicted with the disease while in Europe, how can it disappear while coming over the ocean? The symptoms and etiology of this infection seem to differ with the country in which it is referred to. In every journal and text-book we find decided differences as to the picture of the disease the parasite is apt to produce. Certain trades seem to be more afflicted than others. Certainly we find more frequent mention of this disease after the building of the St. Gotthardt tunnel. Shortly after that time it became epidemic in various parts of Europe. Men employed in brickyards, miners and potmakers seemed to be the principal sufferers. It is a fact that after the building of the new tunnel a greater mixing up of those laborers took place, and it is natural the miners and men working in brickyards took to the notion of traveling, and they imported the disease to America.

The Mode of Infection.—The development of the egg after it has left the body deserves some mention. After it has left the body it soon sets the embryo free, which leaves the shell as a rhabditis forms, which soon encysts itself, and these larvæ are apt to resist all kinds of weather and temperature. Infection may be brought about in many a way, as, for instance, after working in clay the hands may be infected with the larvæ. In summer season it is proved by the experiments of Von Schlopp that the larvæ may be taken up by dust, carried by the wind and thus swallowed, thereby reaching the digestive tract, and producing symptoms more or less severe when developed to the mature worm. Children are very easily infected, because they have a decided notion or preference for play in mud or clay piles, and after making mud pies frequently consider a piece of such pie a delicious morsel. Last, but not least, we have to consider a very important way of infection, that is, by eating vegetables grown in infected soil,—ground berries, strawberries, salads, lettuce, celery,—in fact all that have grown on low soil and in the ground directly. After the larvæ have reached the stomach, where no action is exerted upon them, they pass on to

the small intestines, until the alkaline juice below the common bile-duct dissolves the thin cover, and the fully-developed young worm is set free. As far down as the jejunum the parasites may be found. Very seldom the worm is found in the large intestines. In the small intestines these nematodes attach themselves like leeches to the mucous membrane, boring their way as far as the submucosa, there holding firm with their hook-like teeth, and by the leeching movements the blood is taken up.

The worm seems to make use of the fluid part of the blood only, as one can observe it expelling the red cells through the anal opening, having it freed from its fluid contents. This shows that only sanguine fluid is necessary for the parasite to live on. By means of the microscope the process is easily observed how the red cells leave the tractus intestinalis without any structural change, only in a somewhat shrunken condition. The symptoms of the disease seem to be manifold: if but few of the nematodes are present, no symptoms may appear, providing the individual is otherwise healthy and of strong constitution; as soon as development of a greater number of these parasites takes place, the symptoms may be aggravated in form. The female takes up more nourishment than the male. As the loss of blood increases, the more pronounced becomes the anemia, the characteristic trouble produced by this intestinal parasite. A patient afflicted with the disease resembles the American Indian in color, perhaps more nearly the Esquimau. The blood seems to be poor in coloring matter and of watery consistence; in fact, if the nematodes exist in large numbers, say several hundred, the progressive anemia becomes more marked, until we observe the perfect picture of a progressive pernicious anemia, and thus a fatal termination is not excluded. Diagnosing a case of pernicious anemia, the anchylostamum duodenale ought at once to be looked for. The anemia may be produced in various ways; in the first place, by the irritation of these worms exerted upon the intestines; furthermore, there may be absorption of certain toxins produced by the worm and absorbed by the intestinal mucous membrane; also, the excreta of the parasite in general being absorbed, really the absorption of the excreta and secreta must be the greater factor in bringing about the early symptoms of such anemia.

Very naturally, these toxins are taken up by the blood stream, with the food being digested in the intestinal tract; but there seems a special toxin manufactured by the nematode

exerting a peculiar influence over the blood and its circulation. Whenever there is a worm falling off, more or less hemorrhage takes place on that part. Several patients often felt a sensation of warmth, caused by the flowing of blood in the intestines, especially in the morning, and express the sensation as being not unlike the nose bleeding. After such complaint I always found blood in the feces. No matter how small the hemorrhage, it does not fail to influence the system. At post mortem, of which I saw one while in Berlin, many brownish spots are found, which are the remains of the attachment of such a worm. The influence of the worm upon the digestive tract is apt to produce severe diarrhea, at times accompanied by vomiting; in fact, it may resemble cholera nostras in every particular, often going so far as to bring a patient to a state of collapse. There may follow complete rest and normal function for a period, then again starting up the same symptoms in aggravated form. A period of longer or shorter duration, even one or two years, where hardly any abnormal symptoms appear, is not infrequent.

On the part of the patient, the want of oxygen seems increased, and the waste products as $C.O_2$ seem to be given off in excessive amount. The oxydisation of all food-stuffs seems to be accelerated, yet with little benefit to the patient. There seems to be an auto-intoxication going on all the while in the intestinal tract, and in this way we find causes for the various stages of anemia. The appetite of the patient often is intense, *i. e.*, it seems that he cannot eat sufficient; then, again, periods of longer duration and the patient is deprived of all appetite for food. Thirst may be very intense; the heart is influenced on account of the toxins present. The blood is the part that suffers most, and this may be in any condition, according to the severity of the disease.

SYMPTOMS.

I find the symptoms in this disease to be characteristic in nearly all cases, as the peculiar expression of the patient, the anemia, the diarrhea, always preceded by a severe attack of colic, the pain, as a rule, being on the left of the median line; in fact, it seems to be right over the pancreas, while it is just beneath common bile-duct in the upper part of the small intestines. Pruritus ani is intense, especially in the evening; at night it may become so intense as to awaken the patient. Of peculiar notice is the difficulty of hearing, due to the anemia, which subsides as the

other symptoms of the disease decrease. A one-sided headache, which I have observed to be most intense at night, is relieved when some food is taken, and therefore seems mostly due to the empty stomach ; yet there is more or less headache all the time, and it is an obstinate symptom to combat. All the pain seems to come on mild in the beginning, increasing in intensity until it has reached its climax, and then subsiding in the same way as it came. I have also noticed a desire to swallow accompanying the trouble, not unlike the swallowing of the globus hystericus. Furthermore, there is, characteristic of this, a swelling nearly over the pancreas. When first noticed, it seems like a tumor, which decreases in size as soon as cathartics are administered and have taken effect. Now, with the aid of the microscope, the diagnosis is easy, as not only the eggs but the worms are found in the stools. The finding of the parasite and its eggs naturally confirms the diagnosis. I am sure that many cases of anchylostamum have been mistaken for cholera nostras, or as being due to some unknown poison, or other cause, as I have found out myself in several instances. I had five cases under observation, which I had gathered in a comparatively short time, which makes me believe that the parasite has a home in Buffalo, where there are a number of inhabitants of Italian and Polish laborers and clay soil in and around the city, both of which seem advantageous to the existence of the nematodes and their distribution.

CASE I. Mr. R., aged 48, came to me in November for treatment. His expression peculiar, which I could describe as an expression of fear, complaining of feeling very weak and dizzy. Patient says that he has felt sickly during the last three years. Had been working in a brick-yard several years ago. His skin is bronze colored; mucous membranes all show signs of severe anemia. His appetite is very varying, but mostly poor. His bowels are usually constipated, and at times has diarrhea, with severe pain. His circulation is very poor, vessels seem relaxed. Has been treated at various times for anemia, and also for liver complaint. Physical examination : I found systolic murmurs over heart : the heart's action weak ; the pulse irregular, slow, intermittent ; respiration shallow, but labored ; the blood seems watery, the number of red corpuscles decreased ; the number of red cells to the cubic millimeter decreased about one-half million ; the stomach normal in size, tender to touch ; liver seems normal, but also very tender ; the pancreas and small intestines are extremely painful to touch and considerable swelling is noticed. Patient had difficulty in walking for a while ; his memory seemed somewhat weakened ; digestion is very poor ; after

having administered a cathartic, examination shows food barely digested—undigested starch in abundance and considerable amount of undigested meat fiber; large numbers of eggs of *dochimus duodenalis*: kidneys somewhat inactive and a trace of albumin.

Treatment for the parasite causes improvement of the patient. The improvement is steady, and the patient is able to go to work again, something he has not been able to do during the last year.

CASE II. Albert H., aged 7, had an attack of pneumonia and an attack of typhoid fever. Recovery was unusually protracted. Examination of the stools, after a mild cathartic, revealed the presence of a large number of the eggs of *dochimus duodenalis*, and an excessive number of *trichomonas intestinalis* and *cerecomonas intestinalis*.

Treatment for the disease brought about a rapid recovery. The change of the blood was that of progressive anemia. Infection was traced to one Polish and two Italian laborers who were infected with the disease while employed in the brickyard of the patient's grandfather, the playground of the children.

CASE III. Mr. S. O. came to me September 14th for treatment, a second time since 1894. He is 52 years of age, a farmer. He was treated for pernicious anemia several times without any marked success. His complexion is bronze, his look unsteady; his pulse is slow and weak, his temperature 100 2-10, respiration 26; the white of the eyes show marked yellow, his blood-vessels seem enlarged, but not thickened; capillary circulation fair; anemic murmurs to be heard in the heart sounds. Examination of blood: poikilocytosis marked, red cells decreased in number; digestive apparatus in very poor condition, ulcerations of the rectum extend up as far as 4-6 inches. Stomach contents: rare meats, well digested; starches, barely digested; stomach not enlarged, the movements somewhat hastened; vomiting quite frequent. Microscopic examination of the feces: greater number of parasites, red cells; leucocytes, amebæ coli and eggs of *dochimus duodenalis* in abundance: furthermore, epithelial cells, triple phosphates, and principally *trichomonas intestinales* and *cerecomonas intestinalis*, are present; tongue, pale, heavy-coated; liver, normal; spleen, somewhat enlarged; skin has a whitish-yellow appearance; the kidneys, somewhat irregular in action. Patient was infected with syphilis eleven years ago, and, furthermore, committed self-abuse until late years; his mental condition is somewhat deranged, and evidences of progressive spinal trouble seemed present. Examination of urine: normal, but faint trace of albumin. September 14th, at 9 P. M., the patient had an attack which resembled cholera nostras; temperature, 103½; pulse, 120; breathing, 28 to the minute. All ordinary remedies failed to check it, until 4 o'clock in the morning, when the old French remedy of claret boiled with a considerable amount of cinnamon checked

the attack. About 9 o'clock a full picture of typhoid fever seemed to have developed; temperature, 103.8-10; pulse, 114; respiration, 26; typhoid spots on lower chest and abdomen; tongue, thick brown coating, and ilio cecal region very tender; patient himself very drowsy and hard to awaken. September 17th—The symptoms remain the same. Commenced to give sponge baths at short intervals. Stimulants: lactophenin, in eight-grain doses, if required. September 18th—Symptoms remain the same, until the 26th, when all typhoid symptoms seem to have disappeared all at once. High rectal douches bring about free evacuation; great number of the parasite and eggs in the discharge. From that day the patient improved, but very slowly, always complaining about pain over his pancreas. Treatment: douches continued, mild vermifuges, and bowels kept regular: anemia remains the same, progressive, pernicious anemia; all remedies fail. The number of the parasites became less, so also the eggs. On October 12th no eggs nor parasites can be found; patient begins to feel better in every respect and leaves for home, this being the second time he underwent the worm cure. Examination of blood before departure showed marked improvement.

CASE IV. Frank R., German, aged 46, stonecutter, married, family history negative, came for treatment September 3d. Patient had been well until six years ago, when he had an attack of gonorrhea; evidences of chronic symptoms. At that time he had orchitis epididimitis. Three months ago he had a mild sunstroke, at least that is what he was treated for. *Status presens*: Patient has a brownish color, signs of severe anemia; breathing is difficult; asthmatic; heart, systolic murmurs, very weak; pulse, small and frequent; patient complains of permanent tired feeling; digestion and appetite very poor; complains of having hemorrhages from the bowels at intervals; on examination, no hemorrhoids; rectum free from all disease; cough, short and hacking, no expectoration, patient having a desire to swallow frequently; kidneys, slightly irregular; urine, normal; skin, muddy color; liver, enlarged, also spleen; genitals, chronic gonorrhea; blood, red elements decreased $3\frac{1}{2}$ millions red cells, irregular in size and shape. Examination of feces: eggs of *anchylostamum duodenale*, also eggs of *tenia solium*; food-stuffs badly digested.

The patient has been working in a brickyard along with Italians, who oftentimes suffered with severe colic, of which he now complains himself at times, and diarrhea.

CASE V. Antonia F., bricklayer, aged 58, has been employed at the building of the St. Gotthard; also very anemic; history same as before.

Both patients improved in every respect on antiparasitic treatment.

THE RATIONAL TREATMENT OF ASTHENOPIA.¹

BY WHEELOCK RIDER, M. D., Rochester, N. Y.

AFTER a period of labor, its length depending upon the local and general muscular development, the general condition of the individual and the amount of power expended, there arises in all voluntary muscles an indefinable sensation of exhaustion, described as "tiredness," which induces rest from effort. Now, it is a physiological fact that in doing close work the eyes are entirely dependent upon muscular effort, and in so far are subject to the same laws of endurance and fatigue as are other muscle groups.

The term asthenopia comprises several symptoms of muscular fatigue—namely, localised pain, dimness of vision in so far as it depends upon accommodation, congestion of the conjunctiva, drowsiness, intolerance of light, and several other reflexes. Asthenopia, then, is to be considered as pathological in that a normal discomfort is experienced after less effort than suffices to fatigue a normal muscle; in other words, asthenopia is a relative incapacity for ocular muscular endurance.

Time will not permit me to trace, so fully as I would wish, the growth of our acquaintance with the motor apparatus of the eye. Briefly, the knowledge of the function of accommodation dates from the middle of this century. For thirty years refractive errors, pure and simple, received attention from the surgeon, while during the last fifteen years much study has been given by some observers to the vagaries of the extrinsic muscles.

I wish to call your attention to a method of treatment which is now much in vogue for the relief of asthenopia—namely, by the so-called graduated tenotomy of the extrinsic muscles. I hope to show by a history, typical of a very great number—an honest average case—that such treatment is physiologically irrational, that the attempts are often futile and the results sometimes disastrous. I will present the detailed history of this case, and in a brief discussion of it, will elucidate the views on the treatment of asthenopia which alone appear to me rational.

In June, 1895, a young woman consulted me, bearing an introductory letter from a member of her family, telling me of her having been under the care, for nearly five years, of an ophthalmic surgeon in another part of the state. The complete notes of her

1. Read at the annual meeting of the Medical Association of Central New York, at Rochester, October 20, 1893.

case, taken by her previous consultant, were enclosed. Her medical adviser I know to be carefully prepared and fully equipped for his work. He is a man of large practice and much experience, and in his view of the case he may be considered to fairly represent, I am sorry to say, a too large number of the ophthalmic surgeons of today. Following is a copy of his notes of her case :

Miss X., aged 20 years ; first seen November 12, 1890. Symptoms, headache between the eyes, asthenopia, vertigo, nausea and some mental symptoms. Vision, right eye, $\frac{5}{6}$: with + .50 sph. and + .25 cyl. 90° vision is $\frac{5}{6}$. Vision, left eye, $\frac{5}{6}$: with + 1. sph. and + .25 cyl. 90° vision is $\frac{5}{6}$. Latent divergence, 9°. Abduction, 15°. Adduction, 20°. With red glass over one eye, momentary diplopia. Homatropine gave same refraction, which was corrected, with 2° prism base in, added. Worn a month with seeming benefit, but prisms being inadequate, tenotomy was advised.

December 12, 1890. Partial tenotomy of left external rectus, exophoria being previously 9°.

January 24, 1891. Exophoria still 7° or 8°. but about all latent. Abduction still 15°. Partial tenotomy of right external rectus, leaving esophoria of less than 1°.

February 21, 1891. Exophoria, 4°, and a partial tenotomy of left was done.

April 10, 1891. Much relieved. For two weeks after last operation was free from headache. No latent deviation. Left hyperphoria, $\frac{1}{2}$ °, this being the first indication of hyperphoria.

October 13, 1891. Orthophoria.

March 29, 1892. Some headache and dizziness ; cannot use eyes much, but during last winter much improved in general health. Exophoria, 5° by phorometer, but there is probably much more, as the divergent movement seen in covering one eye is marked. Exophoria corrected by tenotomies, each being followed by a period of relief, the last leaving 2° or 3° of esophoria.

February 28, 1893. Esophoria, $\frac{1}{2}$ °. Glasses now changed to + 1. sph., with + .50 cyl. 90° each eye.

July, 1893. Cannot use eyes. Exophoria 2° or 3°. Prisms added to the glasses, without relief.

October 6, 1893. Left hyperphoria, $\frac{3}{4}$ °, and she accepts : right, + 1.25 sph. with + .50 cyl. 90° ; left, + 1.50 sph. with + .50 cyl. 90°.

Since October refraction has not changed. These glasses ordered, decentered to correct hyperphoria.

February, 1894. Headaches returned.

March, 1894. Left hyperphoria, 2 $\frac{1}{2}$ ° to 3°. Exophoria, 1 $\frac{1}{2}$ °. Abduction, 8°. Corrected by decentration, 2 $\frac{1}{2}$ °.

May 9, 1894. Left hyperphoria, 1°. Prisms ordered.

June 13, 1894. Headaches not relieved. Left hyperphoria, 4° . Partial tenotomy of left superior rectus, leaving 1° ; later, no hyperphoria.

December 7, 1894. Still complains of headache. Exophoria, 4° ; no hyperphoria. Gave prisms to exercise internal recti, but without benefit.

January, 1895. Exophoria, 2° or 3° ; no hyperphoria.

This narrative of so much careful labor on the part of the surgeon and of such long suffering and endurance on the part of the patient seems to need no further comment. I would ask you to note that after more than three years and numerous operations the deviation remains the same; that, notwithstanding an almost diurnal variation which is known to exist, we have, in December, 1894, an exophoria of 4° , as in February, 1891. In March, 1892, we had, after several (number not stated) tenotomies, an esophoria of 3° , gradually changing in sixteen months, without operation, into an exophoria of 3° .

The patient told me that she had made no effort to use her eyes for close work during the past two years, and she complained bitterly of her enforced idleness. The glasses with which she was provided I found to be correct. I did not investigate the unbalanced extrinsic (recti and oblique) muscles. In a general conversation, during which I could closely observe her temperament and disposition, I learned that she was, in a sense, a spoiled child, rather neurotic, overworked by society's demands, very despondent as to getting relief, but altogether intelligent and likely to follow advice. She was shown models and plates of the eye, and was interested in some simple experiments, all demonstrating the motor physiology of vision, after which she returned home instructed to read one minute in the forenoon at a given hour, and again one minute in the afternoon at a given hour—another person to act as timekeeper. On the second day the limit was set at two minutes; on the third day at three, and so on until a half-hour's reading was accomplished, when she was to rest fifteen minutes and proceed as before. She was to wear her correcting glasses for close work only. She was to have several hours' employment out of doors each day. Her recovery was uneventful, and she was discharged reading daily three hours systematically, and as much more as pleased her. The management of this case by her former adviser is not unusual in the following items: he failed in the beginning to discover the full amount of her hypermetropia and astigmatism. He believed that a lack of balance of the strong

recti muscles explained her asthenopia, and he thought he could operatively weaken a strong muscle more accurately than the opposing muscle could strengthen itself by the labor necessarily put upon it if single vision was to be maintained. He failed to apply the doctrine to which he must assent—that function, in a general way, determines the organ, that the blacksmith's hammer is the father of his biceps.

My view of the case was, that no matter how far, within reasonable limits, he had, by so-called graduated tenotomies, upset the balance of the extrinsic directing muscles, the necessity for avoiding diplopia would compel her muscles to preserve the proper coördination, and that a compensatory development would follow. I held, moreover, that the ciliary muscle was weak from disuse when the patient came to me, that by exercise it would develop strength—remembering that in myopic eyes in which accommodation is not required, there are often no circular fibers whatever, and that in hypermetropic eyes the circular fibers are developed to constitute, in some instances, half the bulk of the entire muscle. I believed, moreover, that with well-trained adjusting apparatus she would be enabled to endure the labor which her oversight put upon her for distance, and that she might lay aside her glasses, but that in training it was well to place her eyes upon a physiological basis and obliterate, for a time, her deformity.

We who are not myopic have, as a rule, hypermetropia; we are very generally astigmatic, and eighty-four of us in every hundred have unbalanced recti muscles. On the other hand, relatively few of us suffer from asthenopia. It is not unusual to find individuals whose eyes, with hypermetropia of two dioptries, have never for thirty-five years given the least evidence of the defect, and very recently there has come under my observation an instance of marked asymmetrical development of the recti muscles which nicely illustrates how great a tolerance in this regard may be established.

A young woman whose history was clear of all suspicion of eye-strain had an embolism of the central retinal artery. Blindness of this eye was immediate, absolute and permanent. A year afterward she comes to me with marked convergent strabismus. The blind eye has been seeking the position of repose in the direction of the least resistance. For cosmetic effect a wide and, so far as possible, complete division of the tendon of the internal rectus is made with satisfactory result. When repair of the wound is concluded a perceptible convergence may still be detected. No

new forces have been at work to produce squint in this eye. Is it not reasonable to assume a decided unbalancing of the recti muscles, of long standing, but with proper coördination of movement as long as binocular vision existed ? When one eye, however, is blinded, no incentive for properly directing this eye exists, and it gradually turns in as the compensating hypertrophy of the external rectus vanishes. How many graduated tenotomies, think you, would have sufficed to have established balance in this case had it been attempted for asthenopia ?

Such meddlesome surgery as is exemplified in the first case mentioned, that of the asthenopic patient, does not, as a rule, work injury aside from loss of time, the dangers and inconvenience of operations and the depleting of the subject's pocketbook. Compensating development as surely remedies the errors of the tenotomist as it rights the wrongs of individual structure. But this can hold true of cautious surgery only, and, moreover, when directed solely to the external and internal recti muscles. If the obliques or superior or inferior recti be attacked disaster may follow. The following not unusual case illustrates such a calamity.

Mr. E. complains of asthenopia, and diplopia when looking below the horizontal plane. Examination, after employment of a mydriatic, reveals no important refractive error. He then gives this history : a year before, on leaving school where he had done little study, he entered a mercantile establishment and did much close work. His eyes became fatigued. For his asthenopia he consulted a gentleman of large practice and much experience in doing tenotomies. He was examined without a mydriatic ; nothing was discovered in the way of a refractive error, though, of course, it might have existed in considerable degree. For latent hyperphoria he submitted to—first, tenotomy, sup. rect., right eye ; second, tenotomy, sup. rect., left eye ; third, tenotomy, inf. rect., left eye ; fourth, tenotomy, inf. rect., left eye ; fifth, galvanism locally, daily, for two weeks ; sixth, tenotomy, inf. rect., left eye ; seventh, advancement, inf. and sup. rect., left eye. If, standing, he looks at a candle placed on the floor six feet before him he sees two candles, one two feet above the other. The confusion is so intolerable that he is learning to keep one eye closed. I can suggest to him no remedy other than the production of a divergent squint, to put one eye entirely out of range and assist him in learning to suppress one image. Enucleation of one eye would simplify matters, but can hardly be considered ; yet he is now liable

to serious injury from falling on stairs and uneven surfaces. He had in the beginning a latent hyperphoria—that is, a tendency toward deviation of one eye upward, which he could and did correct. He now has a loss of the power to coördinate the downward movement of the visual axes. It is not now latent, for he cannot correct it, and it requires no phorometer or prisms to demonstrate it.

Now let me briefly state the method for treating these asthenopic patients which seems to me to be rational, and which, judging from results, I consider to be entirely adequate. First, however, in order that the importance of a proper treatment may be realized, I will say that fully three-quarters of my patients desire relief from asthenopia.

I first ascertain whether or not the general condition of the patient warrants the exertion he demands of his eyes. If it does I learn whether or not the ciliary muscle is correcting hypermetropia, hypermetropic astigmatism or presbyopia, in addition to its normal function of controlling accommodation. If deformity is excessive, *i. e.*, is more than is usual in the average man, glasses are ordered for close work or to be worn constantly, as the exigencies of the case demand. A mydriatic is necessarily used in all eyes not presbyopic. If the deformity be slight, the patient is told to get into training, assured that a physiological fatigue will limit overwork, but that bedridden eyes are frequently seen.

I have no desire to enter the lists to combat the intenable proposition that in graduated tenotomies of the ocular muscles we have a patent remedy for chorea, hystero-epilepsy, chronic constipation and insanity. All this and more has been asserted, but I believe it to be so absurd as to ensure its own destruction. However, such specious argument is made in so many quarters for tenotomies to relieve muscular asthenopia, so many patients are subjected to the risks of useless operations, and it all is, it seems to me, so far from truth, that I have, after observing in wonder and silence for many years, ventured to present the matter for your consideration.

With all due modesty, I wish to place myself on record in 1896 as saying that graduated tenotomy for the relief of asthenopia is, as a rule, irrational and dangerous.

EXPERIENCES IN THE ANTISEPTIC TREATMENT OF TYPHOID FEVER.¹

By CHARLES H. RICHMOND, M. D., Livonia Station, N. Y.

WHEN the antiseptic treatment of typhoid fever was first introduced I was somewhat sceptical as to its practicability, owing to the distance such a remedy would have to travel before reaching the point of systemic infection, it being thereby likely to lose much of its power. Moreover, the delay which usually elapses before a physician is called and before an accurate diagnosis is made, enables the disease to advance sufficiently for the development of changes in the intestinal tract which will require time to repair.

I have treated typhoid fever for many years antipyretically, according to Liebermeister's plan, with baths and quinine, cases of all grades, without the loss of a single case, but after the discovery of the coal tar preparations, so much had been said about the value of acetanilid that I applied it in two or three cases. One of these died at the end of about eight weeks, of general dropsy and general breaking down of the system, the remedy seeming to cause a disintegration of the blood. I did not treat many in that way.

Disliking to be out of fashion, I employed the sulpho-carbolate of zinc treatment in three or four cases. Aside from the remedy causing irritation of the stomach, it did not seem to cut short the disease in any case, although it may have mitigated the force of it somewhat. My first or second case so treated died of intestinal hemorrhage during the fourth week.

I used tincture of iodine and carbolic acid, with a ten-grain dose of calomel every four days, in a number of cases; I do not remember how many. The cases all recovered, with an average duration of about three weeks, with the temperature somewhat modified by the remedy. The patients were rather weak at the termination of the fever, but they recovered without any very bad symptoms supervening.

During the past three years I have treated all my cases with salol, supplemented with a sponging of the surface. I will mention especially the results in my cases of the present summer and autumn—nine in all. In one the duration was twenty-one days from

1. Read before the Medical Association of Central New York, at Rochester, October 20, 1896.

the institution of the treatment; in one, fourteen days; in five, ten days and in two seven days. In several of the cases the afternoon temperature reached 104, but did not remain at that point more than two or three days. Those of the longest duration were not seen until the patients had been ill for several days. One of the cases which lasted ten days seemed about to terminate at the end of a week, when the treatment was discontinued by a misunderstanding, and the fever returned, only terminating at the end of the tenth day. In another of the ten-day cases, at the termination of the fever proper, a circumscribed pneumonia took place, attended with fever lasting about four days. In all the cases treated by salol during the three years, only three have apparently run a full course of three or four weeks, and in these the temperature had been reduced from an afternoon registration of 104 to 102 or below during the remainder of the course, while the patients at the termination were usually in good condition and gained rapidly.

The reason of the efficacy of salol over other antiseptics in typhoid fever is, I suppose, that it only breaks up into its component parts after having passed well down in the smaller intestines, allowing the antiseptic elements to come in contact with the affected parts. If ulceration has taken place before the treatment is begun, while the symptoms may be considerably mitigated, it will be impossible to arrest the case until the process of repair can take place; hence, the earlier the treatment the more certainty of arresting the course of the disease. I usually use the drug in seven-grain doses in adults, every three hours, for the first few days, after which, if the patient does well, the dose is reduced to five grains. If the morning temperature drops in a marked degree, or if profuse diaphoresis occurs, two or three of the early morning doses are omitted. I always direct care in its administration after midnight, and to omit if the urine becomes black. One point it will be well to bear in mind—salol should be always given in the crystal form and never in pill, if certainty of effect is desired.

So far as other treatment is concerned, plenty of fresh air, water and liquid nourishment are required, and I have never seen harm result from the bath, only I never use it very cold. A bath is much more effective in reducing temperature than sponging, but sponging will answer very well when the symptoms are not urgent.

Progress in Medical Science.

MEDICAL EDUCATION AND STATE LICENSE EXAMINATIONS.¹

CONDUCTED BY WILLIAM WARREN POTTER, M. D., Buffalo, N. Y.,
Examiner in obstetrics, New York State Medical Examining and Licensing Board.

REPORT OF THE NEW YORK STATE MEDICAL EXAMINING BOARD.

FROM January 1, 1896, to January 1, 1897, there have been 805 candidates for licenses to practise medicine in the state of New York who have appeared before the several boards having the power to recommend the granting of a license to practise medicine. The total percentage of rejections was 23.7. Before the board representing the Medical Society of the State of New York there appeared 733 candidates, of whom 555 were successful and 178 unsuccessful, the percentage of rejections being 24.2. Before the homeopathic board there appeared 52 candidates, of whom 41 were successful and 11 unsuccessful, the percentage of rejections being 21.1. Before the eclectic board there appeared 20 candidates, of whom 18 were successful and two were rejected, or 10 per cent.

There were five examinations during the year—in January, April, May, June and September. In the figures above given, each candidate who appeared more than once during the year is counted for each time he appeared. The figures in the table appended are for individuals regardless of the number of times they appeared for examination. This latter table shows that 86.2 per cent. of graduates of New York medical schools were successful in our examinations, while but 74.5 passed our examinations of those who were graduates of foreign (*i. e.*, out-of-the-state) colleges. The program of examinations for the year 1897 contemplates five examinations at intervals similar to those for 1896.

The differences in the ratings of the various medical colleges of the state are matters of public record and are not here reproduced because of the very little differences in the percentages to be noted. The records are on file in the regents' office, and to those interested the exact figures will be furnished on request.

It was feared by persons interested in the medical institutions of this state that the exactions of the law primarily passed in 1890, and subsequently amended in 1893 and in 1896, would deter foreign students from attending the medical colleges of this state.

1. Presented to the Medical Society of the State of New York, at its ninety-first annual meeting, Albany, January 26-28, 1897.

Sworn reports at the regents' office show that since 1893 there has been an increase of 490, or of nearly 15 per cent., in the number of medical students in New York state. It is also to be noted that at the present time the state of New York furnishes education to about 17 per cent. of all the medical students in the United States. From the years 1889 to 1893 there was an apparent decrease in the number of medical students in the state of New York, presumably because under the old methods of nomenclature students of pharmacy and special courses were included in the list of students of medicine. At the present time this does not obtain. Students of medicine alone, seeking for the degree of doctor of medicine, or post-graduate students, are now counted in the list. Under the highest matriculation requirements in the United States, the state of New York is increasing rapidly in the number of her medical students. The increase of a beneficent character in connection with New York medical schools is not alone confined to the added number of students above noted, but in this connection we call attention to the fact that since 1893 the total property of the medical schools of the state of New York has increased more than 100 per cent. The above figures in connection with the medical colleges of the state of New York are given, because it is believed that after the lapse of six years in the enforcement of the medical laws the objection urged repeatedly against the establishment of the law, which carried with it the statement that the influence and the power of the medical colleges in the state of New York would decrease because of the restrictions placed on admission to our schools, has fallen flat; and per contra, that the prediction of those who warmly advocated and pressed to a final passage the law under which we are now working has been verified—namely, that the highest standard would ultimately redound to the greatest credit of the state. As the growth referred to is not confined to the colleges of New York City, but applies even more to those situated in other parts of the state, it will be seen that the increase has been equally distributed and that no one particular institution, or set of institutions, has been favored by the operations of the law.

The methods of examination which originally obtained in the board have, with slight modifications, been continued. The main subject of medicine is subdivided into seven groups, as specified in the law. To each one of these subdivisions a time limit of three hours on examination is devoted. In this manner the entire session

is made to last three and one-half days. In each subdivision there are fifteen questions submitted, of which the candidate must answer ten to be selected by himself. The complete value of each question answered correctly is ten, so that an absolutely perfect paper would receive 100 points. It is necessary in order that the candidate be passed in a topic to receive at least seventy-five points. If he fails in one topic, the board refuses to recommend him for license, and it becomes necessary for him to appear at a subsequent examination, without extra cost if his total average is 80 per cent. or more, in which case he may be reexamined only in the topic in which he was rejected. Should his total average in the other topics be less than 80 per cent., or should he be rejected in more than one topic, it is required that he wait at least six months before reexamination, without cost, and in all the topics; or, if he desires to take an examination sooner than within the time limit here given (and the law is quoted in this part), he may, on payment of an additional fee of \$25, be admitted to the examination next succeeding the one at which he was rejected.

It will be seen from these figures that before being licensed to practise medicine an applicant must receive at least 525 points out of a possible 700. The annual report of the State Board of Medical Examiners of a neighboring state is so ridiculous in its pretensions of comparison with the work of our own board that we feel it our duty to detail the methods by which a conclusion is reached by them. They state that the regents refuse to accept their certificates in lieu of further examination for license to practise in the state of New York, "although our medical requirements are higher than theirs, since 675 points must be obtained by a candidate to secure our license and only 525 points to secure theirs." The entire subject of medicine in their state is divided into nine subdivisions. They have accepted our method of marking, and consequently require 75 per cent. in each topic. They multiply 75 by 9 and thus get a total of 675 points out of a possible 900. Ours is, as stated, a total of 525 out of a possible 700. It will be seen from this that the percentage is exactly the same. However, their own figures of the examinations of 1896 will show how little reason they have for the statement that their medical requirements are higher than ours. Notwithstanding our high test for entrance to examination, a condition which does not obtain with them, we rejected last year 23 per cent. of all the candidates who were admitted to examination. Their board rejected just 4 per cent.

Comparisons may readily be made by those who are interested, when the speciousness of the claim will become apparent.

Notwithstanding the legislation of last year, the standard of the board is still maintained. The minor concession which was made for the benefit of those students who had registered under a misapprehension in 1894 and 1895, and which had the approval of almost the entire profession and of all the medical colleges but one in the state, has operated to the credit of our institutions and has reflected favorably on the liberal spirit of the medical educators of the state.

Because of our failure to reciprocate, the State Board of Medical Examiners of Pennsylvania has refused to recognise our license as heretofore, and in consequence practitioners of medicine licensed to practise in New York state are required to pass an examination before being permitted to practise in Pennsylvania. The only reason for this is because of our failure to reciprocate. This we have been unable to do because of the lax methods of admission to examination prevailing in Pennsylvania, as compared with the stringent rules in force in this state. The New York statute makes it impossible for us to show any favor to an out-of-the-state applicant for license which the laws of the state of New York do not extend to an applicant residing in our state. The discrimination would be an unjust one, and in keeping with this statutory provision we are forced to refuse the credentials of licentiates of other boards. We hope that there may be some modification of this rule, but the initiative must come from other states where the regulations as to examination, more particularly those applying to the preliminary or academic requirements, must equal ours. We are fortunately situated in this state in that we have an independent educational body known as the Regents of the University of the State of New York, which supervises the higher education of our state. This body is in possession of all the facts and figures relating to higher education throughout the country and throughout the world, and from its files can be learned whether or not an institution from which an applicant for license is graduated maintains a standard which is equivalent to that obtaining in our own state. No other institution in the world, probably, is so well equipped with information of this character as is the regents' office, and we derive the benefit of their experience. In Pennsylvania and in other states the law simply requires that an educational test be had as to the qualifications of those who desire to enter on the study

and practice of medicine. A board is improvised for the conduct of preliminary examinations, but the tests are not uniform. In many states the medical colleges themselves pass upon the qualifications of those who wish to have themselves entered as medical students, and the preliminary tests thereby become a farce. As a matter of consistency, we cannot place our own men, who have passed through the various examination tests prescribed by the regents, to the disadvantage which would certainly be theirs if the lower requirements of other states were to be recognised as equal to ours. We feel, however, that no step can be taken by this board which would in any way indicate that there was any lowering of the high standard which the society has set for it in the years of conflict to create public opinion in its favor. We are satisfied that today the laity, as well as the profession, would not for one moment permit a backward step in medical education or legislation in the state of New York.

From time to time during the year sets of medical question papers are distributed among the members of the medical profession throughout the state and country in the hope that a study of the same will produce results in the way of criticism which will be of value to our board. We are pleased to say that many members of this society are deeply interested in our methods, and that suggestions and criticisms come from them, which are acceptable, because they are made in good faith and are valuable. We trust for a continuance of this interest on the part of the members of this society.

The assignments of the various subdivisions of the realm of medicine as given in the law are as they were originally made in September, 1891, the officers of the board also continuing as originally elected.

Up to January 1, 1897, 1,893 licenses have been issued under the law which established this board. From this it can be readily seen that within a very short period a majority of the practising physicians of the state of New York will have been licensed by the state authorities, in addition to having a diploma from an accredited medical college, subsequent to a thorough preliminary education and a complete training in medicine.

Imperfect registrations were corrected as follows during the year: by the State Board, 18; by the Homeopathic Board, 4; by the Eclectic Board, 1.

Since the establishment of the system at present obtaining,

2,832 doctors of medicine have applied for the right to practise medicine in our state. Under the old law, each one of these would have been entitled to practise his profession unquestioned, on registering his diploma at a county clerk's office. Of these, 927, or 29.2 per cent., were found incompetent and deficient. A system which has saved the state from numbering among its legal practitioners of medicine so large a percentage of persons whose presence as such must surely have worked harm to the community, and must have detracted from the worth and dignity of our profession, needs no encomiums at our hands.

Signed,

WILLIAM C. WEY, <i>President</i> .	WILLIAM WARREN POTTER.
MAURICE J. LEWI, <i>Secretary</i> .	J. P. CREVELING.
WILLIAM S. ELY.	EUGENE BEACH.
GEORGE RYERSON FOWLER.	

THE PENNSYLVANIA STATE BOARD OF MEDICAL EXAMINERS.

The rapidly increasing standard (*Med. News*) required by this board is an encouraging indication of progress toward the general elevation of scientific medicine in America. Nearly 38 per cent. of the applicants were rejected by the board at its December meeting, while the percentage of failures in July last was only fifteen. Bacteriology is said to have been the subject upon which many showed an insufficient knowledge. The scope of each examination is intentionally broadened, and a more varied as well as a more precise acquaintance with all departments relating to practical medicine will be exacted at each succeeding session of examiners. While sympathy might be felt for those who fail, congratulation for the worthy should be extended by all who have the glory and honor of the profession at heart.

The Session of the Board of Medical Examiners in December.
—At the last session of the Board of Medical Examiners, representing the Medical Society of the State of Pennsylvania, held December 14th to 17th inclusive, there were eighty-eight applicants for license to practise. Of this number five were women and eighty-three men. The result of the examination showed twenty-nine failures and one expulsion, on the first day of the session, for copying. It will thus be seen that much inferior medical timber

is kept outside the boundaries of the state, to the great advantage of its citizens and to the greater glory of the medical profession. The next session of the board will probably be held in June at Harrisburg.—*Pittsburg Med. Review.*

PRELIMINARY VS. FINAL REQUIREMENTS.

THE step taken by a number of the state boards of health in regard to preliminary requirements for admission to medical colleges is in the right direction, but it is a question if it is not too far in advance of the requirements for graduation. A diploma from a literary college does not always signify ability, neither does a diploma from a medical college always mean that the graduate is competent to practise the art. Those states which insist upon the student of medicine being so thoroughly equipped from a literary standpoint might be a little more careful in the qualifications which they require for practising. Something more than a knowledge of grammar, arithmetic and history is required of a doctor of medicine; something more than the fact that he has passed through the curriculum of a high school or college is necessary to prove his adaptability to the work of medicine. Something more than the ability to memorise text-books and lectures is necessary to the man who expects to put into every-day practice the teachings of a life-saving art. A diploma from a high school or college is far from being a qualification for the study of medicine. The applicant for entrance to a medical college should be able to prove his qualification by a careful examination upon those subjects most necessary for the study of such a vast science. But shall we stop with the qualifications for the study of medicine? The most important feature in this wave of restriction should be rather at the latter end of the course. Hundreds of students are graduated each year who have not the least idea of the practical application of the principles they have been taught. Let us have examining boards who will examine the output of our medical colleges from a practical standpoint. Let us have them put to the test in the hospital and at the bedside. Few men in the profession can have confidence in the sincerity of the motives for some of the rulings which have recently been made, for otherwise they are libels upon the judgment and foresight of the men who have been placed at the head of state medical affairs. — *Editorial, Kansas Medical Journal.*

GENITO-URINARY AND SYPHILITIC DISEASES.

CONDUCTED BY BYRON H. DAGGETT, M. D., Buffalo, N. Y.

LOCAL ANESTHESIA BY EUCAINE.

LEQUEU (Association Française d'Urologie; *The Universal Medical Journal*, November, 1896,) claims, as a result of his experience, that eucaine is equal, if not superior, to cocaine for producing anesthesia of the urinary apparatus, that it is less toxic and more stable than cocaine, and that its solution may be sterilised by boiling. It is less poisonous than cocaine, since $1\frac{1}{4}$ grains of eucaine caused the death of a guinea-pig in one and a half hours, while 9-10 of a grain of cocaine killed a guinea-pig, of the same weight, in three-quarters of an hour. He uses a 1 per cent. solution, and injects into the urethra or under the skin $\frac{3}{4}$ or 9-10 of a grain, and follows the rules given by Réches for using cocaine, and alleges that he has never observed any of the accidents attending the primary use of cocaine.

In cystoscopy he injects 160 to 200 grammes ($5\frac{1}{2}$ to $6\frac{2}{3}$ ounces) of a 5 per cent. solution into the bladder. Eucaine congests, cocaine decongests. For this reason cocaine should be used in cases in which there is pronounced bleeding.

Carlier called attention to the fact that sterilised cocaine solutions may be prepared as follows: cocaine is put up in packages of sterilised paper, and at the time of the operation the contents are poured into sterilised water. In this connection Carlier also mentions a special method for producing complete anesthesia of the penis. This method consists in making four injections around the base of the penis.

 URETHRAL ELECTROLYSIS.

BISHOP (American Electrotherapeutic Association, September 30, 1896,) claims that the Newman treatment of urethral stricture by electrolysis possesses many advantages over other methods. Sir Henry Thompson said that an organic stricture is a permanent condition, and cannot be entirely dissipated by any known means. Dilate it, cut it, divulse it, "but then, more or less, the morbid elements must always remain. When a man once has organic stricture, he has it forever."

The advantages of electrolysis are: (1) it is practically painless; (2) it is not in the least bit dangerous; (3) it is seldom contra-indicated; (4) it never makes false passages; (5) it attends to the

stricture only ; (6) it appeals to the reason of the patient and gains his confidence ; (7) it cures.

Dr. Bishop alleges that he has never seen or heard of any ill-effects following the skilful and careful use of electrolysis, while nervous chills, urethral fever, are not uncommon accompaniments of other surgical procedures in the urethral canal. The doctor further alleges that there is abundant evidence, given by eminent men, to prove conclusively that the Newman method of electrolysis cures absolutely.

Causes of failure to get good results : (1) clumsiness in handling instruments ; (2) too much current or too long application ; (3) too much pressure on electrode ; (4) too frequent operations ; (5) too much anxiety ; (6) faulty instruments ; (7) faulty methods of applying the current ; (8) the use of the wrong current.

ARNOZAN (Medical Congress at Nancy, August, 1896,) said the urinary albuminoids are peptones, propeptones, serum albumin, globulin, nucleo-albumin and perhaps others. Albumin has been found in the urine of many persons presenting the appearance of health, but never in normal urine. Its presence signifies impairment and vulnerability, and its prognosis is not yet established. Slowing of the renal circulation, alterations in the blood and lesions of the filtering membrane produce albuminuria. Blood changes may be first in date, and the albuminuria is alleged to be depurative. Albumin is found in the exudates of all inflamed mucous membranes, and is an inflammatory exude in epithelial lesions of the kidney. The casts and chemical composition of the urine are of more value in making a prognosis than the abundance and variety of the albumins ; the state of the renal function is of far greater importance than the amount of albumin.

Albuminuria always indicates a vascular or nutritive disturbance of the kidney, and frequently ends in Bright's disease. Albuminuria complicates many severe maladies and renders prognosis more unfavorable. If it continues after the subsidence of severe fevers and the disappearance of pathogenic germs in the urine, the patient is on the road to a chronic nephritis. The prognosis of toxic albuminurias, due to prolonged use of certain remedies, is not well established. Cyclic or intermittent albuminuria, appearing during the day and disappearing during the night, oscillating with the toxicity of the urine, is not necessarily a morbid entity, although variations occur in permanent and chronic forms.

Albuminuria minima may denote a slight autointoxication, the relic of an infectious nephritis, or it may signify the insidious beginning of chronic Bright's disease. The light and chronic forms of autointoxication, as a rule, control and influence the albuminurias that they cause; the acute nephritis induced by an acute autointoxication may follow its course independently of its cause. The albuminuria of the mother may be transmitted to the child. Albuminuria with diabetes denotes nephritis, and as the sugar diminishes, the gravity of the prognosis increases with the increase of the albumin.

There are two series of causes of albuminuria,—infection and intoxication. If these causes are intense from the start, the albuminuria may result in the rapid disorganisation of the kidney. If they are of moderate form, albuminuria may exist without provoking infection of the kidney and cease with the disappearance of the cause under favoring conditions.

LACTATE OF STRONTIUM IN KIDNEY DISEASE.

BRONOWSKI (*Times and Register*, December 19, 1896,) tried lactate of strontium in ten cases of kidney disease, three of acute parenchymatous, six mixed and one interstitial nephritis. Six doses of fifteen grains were given daily and were well borne. In all cases the volume of urine increased and its specific gravity fell. The effect began on the second or third day, was most marked on the sixth and seventh days and continued two or three days after the drug was discontinued. The action was most marked in acute cases. The albumin disappeared entirely in the acute cases. The amount of etherial sulphates in the urine was unchanged; neither was there any constant change in the pulse or blood pressure. Bronowski concludes that strontium lactate is a pure diuretic and is more valuable than any other remedy in the treatment of acute inflammatory conditions of the kidney.

GONOCOCCUS PYEMIA.

DR. E. FINGER (*Wiener Wochenschrift*, 1896, p. 248,) states that complications of gonorrhea, such as orchitis, tenosynovitis, bursitis, periostitis, endocarditis and pleuritis, are caused by gonococci carried to these parts from the point of infection. The gonococcus rarely excites superficial inflammation of the mucous membranes; more frequently it causes metastatic inflammation and suppuration, associated with other pathogenic cocci, such as pyogenic, strepto- and

staphylococci. It has been shown that the morbid processes produced by gonococci are not unlike, in some respects, to those caused by pus cocci. The pus cocci rapidly permeate the tissues and cause rapid breaking down of the same; the gonococcus is less active and follows the parts of least resistance through the tissues and lacunæ of the epithelium and connective tissues. The gonococcus causes purulent inflammation, with the early formation of abundant granulation tissue. The gonorrheic process forms connective tissue and scars, as in the urethral stricture; in the prostate it destroys the gland, it thickens the suprarenals and causes ankylosis of joints. The gonococcus is less energetic and is more easily destroyed than the pus coccus. The lesions produced by the gonorrheic virus heal more readily than those caused by the pus coccus.—*University Medical Magazine*.

THE RADICAL TREATMENT OF PROSTATIC ENLARGEMENT BY PROSTATECTOMY.

SAMUEL ALEXANDER (*Medical Record*, December 12, 1897,) says whenever the enlarged prostate interferes with the functions of the bladder sufficiently to prohibit urination and to weaken expulsive power, treatment becomes necessary. Delay is then dangerous, menacing both the bladder and the kidneys. There are two methods of treatment, either habitual and life-long catheterisation or removal of the obstruction. If neither of these procedures are possible, an artificial channel for urination must be established and maintained. Operative treatment is not indicated if the obstruction is not great and the power of the bladder is fair; if there is not an excessive amount of residual urine; if catheterisation is easy and painless and cystitis is controlled.

There are many persons afflicted with prostatic enlargement who live in a fair degree of comfort for a long time, often the remaining years of their lives, by more or less frequent catheterism and following a proper course of treatment. There are many others who grow steadily worse in consequence or in spite of catheterism. There are others who have a peculiar immunity from infection, who disregard all rules of cleanliness and antisepsis, and pass along for many years without infection or injury therefrom. If the disease becomes rebellious and palliative treatment is evidently failing, radical treatment should be employed before it is too late. Conditions demanding operative treatment: (1) Complete, or

nearly complete, obstruction, making the patient entirely dependent upon the catheter. (2) When there is marked and continuous vesical irritability. (3) When there is a gradual failure of the expulsive force of the bladder, indicated by increasing amount of residual urine. (4) When catheterism becomes more and more difficult and is frequently followed by hemorrhages. (5) When catheterism causes persistent or frequent attacks of cystitis. (6) When there is long-continued cystitis from any cause. (7) When the patient cannot, or will not, use the catheter properly. Operative treatment should follow catheterism before the bladder or the kidneys are hopelessly damaged.

Operations for permanent relief should result in the thorough and prompt removal of all obstructions, with little damage to the mucous surfaces and with efficient drainage of the bladder established. The radical operation consists in the complete removal of all portions of the enlarged gland.

The operation proposed by McGill, Belfield, Nicoll and Alexander fulfill these indications. In the McGill operation the bladder is opened above the pubes and the mucous membrane covering the projecting portions is cut through by scissors and the obstructing portions removed by combined digital enucleation and cutting forceps. Fuller makes a small opening and enucleates with his finger. McGill drains through the suprapubic opening; Fuller, Keyes and Belfield through the perineum. Belfield was the first to employ the combined suprapubic and perineal operation. Alexander's method: the bladder is distended by eight or ten ounces of antiseptic solution and exposed by vertical incision between the recti muscles and the bladder is retracted by two sutures; the incision is made between them sufficiently large to receive two fingers. The patient is then placed in the lithotomic posture, the membranous urethra opened by a median perineal incision and thoroughly cut to the apex of the prostate. With two fingers of the left hand passed into the bladder, through the suprapubic opening, the gland is pressed into the perineum. The forefinger of the right hand is pressed into the perineal opening, breaks through the inferior surface of the prostatic capsule, shells out the enlarged gland by digital dissection. During this work the gland may be drawn down by forceps. The irrigation is done by tubes through these openings. The suprapubic tube is removed the fourth day, the perineal the seventh day.

Dr. Alexander claims the following advantages for his operation : (1) The entire gland is enucleated thoroughly and promptly removed. (2) The mucous membrane of the bladder and prostatic urethra is uninjured and the danger from septic absorption is lessened. (3) Hemorrhage is reduced to a minimum. (4) The most efficient and thorough drainage is secured. (5) The time required to perform this operation is comparatively short.

PEDIATRICS.

CONDUCTED BY MAUD JOSEPHINE FRYE, M. D.,

Clinical instructor in diseases of children, University of Buffalo.

AN ADDITION TO THE THERAPEUTICS OF SUMMER DIARRHEA IN INFANTS.

O. REINOLD (*Munich Medical Wochenschr.*, 1896, xliii., 421.) made a report in H. V. Runke's clinic on the use of serum, for its blood-thinning qualities, in severe cases of gastroenteritis. The sterilised serum of the cow was used, though horse serum is now employed since Landois proved that the latter was perfectly harmless to the human blood corpuscle. The experiments were made on fifteen children, ranging in age from fourteen days to nine months old, all of them very serious cases, some nearly moribund. These children were all artificially fed and were suffering from acute digestive disorders, and treatment was commenced two or three days after the beginning of the disease, when they had already rapidly lost flesh. Four of the patients died, two with severe lobar pneumonia and two of severe follicular disease of the large intestine. In the rest of the children the serum treatment showed a favorable influence on the disease. The general appearance improved, the eyes became clearer, cyanosis became less, the arterial vessels of the skin became injected and digestion was rapidly improved. Nourishment consisted of thin rice water during the first twenty-four to forty-eight hours. About 10 to 26 c.cm. of serum were injected under the skin of the thorax. No reaction ever occurred at the site of the puncture. In one case an eruption similar to measles, lasting two days, appeared after two weeks, without any fever. Fever was noted in two cases after the injection, and in one case rose to 38.5° C. The rapid improvement of the digestive power and of the stools, in most cases, was partly due, without doubt, to ingredients of the serum, which vitalised metabolism. Especially does common salt exert an influence on

glandular action. The fact that albumin is injected subcutaneously in the serum is probably of importance, when we remember that in these cases nourishment was withheld for a number of days. In 20 c.cm. of the serum the albumin amounted to 1.5 gm., equal to the amount of albumin contained in 50 gm. of undiluted cow's milk or 150 gm. of mother's milk. This, of course, is but a small quantity. It is, however, possible to divide a larger portion of serum into two parts and inject, and, at all events, it seems to some purpose that even small quantities of nourishment should be brought into the body where all food has been stopped by the mouth. Further researches in this direction will be made.—*Pediatrics*, December 15, 1896.

A SUBSTITUTE FOR COD-LIVER OIL.

ALTHOUGH children take cod-liver oil much more readily than adults (*Pediatrics*, January 15, 1897), and often digest it better after they have swallowed it, yet we do occasionally encounter patients in pediatric practice with whom the oil, either pure or in emulsion, does not agree. It is of interest, therefore, to note the results of a trial made by V. Noorden, in the Frankfort City Hospital, of a substitute for this remedy. This substitute is sesame oil, known to us in our childhood days as the lubricant used by the forty thieves on their door-hinges. The oil, obtained by expression from the *sesamum orientale*, is of a bright golden-yellow color, odorless and tasteless, or nearly so. It was tried in several hundred cases, about two hundred of which were in children between four and fifteen years of age. In only one of these cases was it necessary to discontinue the administration of the oil because of vomiting and diarrhea caused by it. Most of the children were scrofulous, so-called, or were suffering from debility following some one of the acute infectious diseases. In all of them, with the exception of the one case in which it was found necessary to discontinue the oil, marked and rapid improvement followed its administration. The usual dose was two or three tea- or tablespoonfuls a day, according to the age, and not infrequently double this amount was given. The cost of the oil in Germany is about 30 cents a quart.

A DANGER OF BICYCLING.

PEDIATRICS (January 15, 1897,) calls attention to the danger of permanent heart injury from use of the bicycle. The danger is not

alone to the young, but adults, when once warned, must look out for themselves. Children must be protected against themselves. In ordinary games, even if the child taxes himself beyond his strength, the strain is of short duration and the heart readily recovers itself when the task is accomplished ; but not so with bicycling, for here the strain is kept up perhaps for hours, and the injury done to the heart in a single afternoon may be beyond even the recuperative powers of youth to undo.

AN EPIDEMIC OF GLANDULAR FEVER.

J. PARK WEST, of Bellaire, Ohio, (*Archives of Pediatrics*, December, 1896,) describes an epidemic of glandular fever occurring in a section of eastern Ohio in the practice of Dr. F. A. Korell. Ninety-six cases were observed, occurring in forty-three families. Records of all cases were kept, from which the following picture of this disease is drawn : a sudden and definite onset after a period of incubation ; a fever running its course in from four to seven days and terminating by crisis ; characteristic enlargement of the cervical lymphatic glands forming an elongated tumor, lying below the angle of the jaw anterior to the sternomastoid muscle, beginning always on one side and appearing later on the other ; enlargement in most cases of other lymphatic glands, notably the post-cervical, axillary and inguinal, and not infrequently the mesenteric and bronchial ; enlargement of the liver and spleen in a large proportion of cases ; prostration and rapidly developing anemia. It was clearly contagious and occurred chiefly between one and ten years of age. The possibility of an irregular form of mumps is excluded by the fact that no enlargement of the salivary glands was observed in any case, that no ordinary case of mumps appeared during the time and that over half of the patients had already had mumps or have since had them. But one death occurred, and that in a delicate child convalescing from scarlet fever.

This disease has been described by old-world observers, but Dr. West has the distinction of being the first in this country to recognise it.

CONTAGIOUS IMPETIGO.

WILLIAM S. GOTTHEIL, M. D. (*Pediatrics*, October, 1896,) says this is a self-limited contagious disease of children, appearing in localised epidemics, and first described by Tilbury Fox in 1864.

Accompanied by a moderate fever and some gastric disturbance, there appear on the face and hands flat vesicles filled with transparent or cloudy serum. These dry up into characteristic golden-yellow crusts, which fall off in two or three weeks, leaving circular, reddened, non-ulcerated areas behind. Successive crops of vesicles may prolong the disease for two months or more. It is undoubtedly parasitic; but, though Kaposi claims to have found it, the etiological factor is still unknown. The treatment consists in removal of the crusts with olive oil compresses, cleansing the skin with hot water and soap, boric acid solution, and the like, followed by the use of Lassar's paste:

R.—Acid. salicylic	30 grains.
Petrolati	1 ounce.
Zinci oxidi	
Amyli.....aa	$\frac{1}{2}$ ounce.

NEUROLOGY.

CONDUCTED BY WILLIAM C. KRAUSS, M. D.,
Professor of nervous diseases, Niagara University.

THE ALTERATIONS OF THE NERVE ELEMENTS IN EXPERIMENTAL UREMIC DYSCRASIA.

SACERDOTTI AND D. OTTOLENGHI, of Torino, have made very interesting experiments on the effects of uremic poisoning upon the various nerve tissues, and have published their results in the January, 1897, number of the *Rivista di Patologia Nervosa e Mentale*.

Their experiments were made on four dogs and three rabbits. In three dogs the kidneys were extirpated at one time; in the fourth, seventy-five days intervened before extirpation. In one rabbit the kidneys were removed and in the other two the ureters were ligated near their entrance into the bladder. Of the dogs, one lived four days, two hours; the second, five days, nine hours; the third, seven days, ten hours; the fourth, four days, ten hours. The rabbit whose kidneys were removed lived fifty hours, the others forty-eight and fifty-six hours respectively.

The microscopic examination of the brains of these animals offered nothing of importance. A certain amount of hyperemia was present in two of the dogs' brains, while in the other two the brains were anemic. The brain of the dog that lived seven days showed a slight diffuse opacity of the pia and a slight amount of

softening of the superficial strata of the cortex. The rabbits' brains showed nothing appreciable. The methods employed were those of Golgi and Nissl.

The ganglion cells of the brain cortex of the hippocampus, cerebellum and the neuroglia cells showed a degeneration, or rather a varicose atrophy of the protoplasmic prolongations in various degrees. The authors draw the following conclusions from their experiments :

1. That ligation of the ureters or bilateral nephrectomy provokes in the nerve centers lesions easily demonstrated by Golgi's method : lesions characterised by a varicose atrophy of the dendrites of the ganglion cells, while the axis cylinder prolongation remains unaltered ; also, that, contrary to the teachings of Acquisto and Pusateri, the neuroglia cells do participate, showing varicose degeneration of the prolongations of these cells.

2. That, regarding the distribution of these lesions—(a) The elements, having undergone degeneration, are most diffuse in the whole cerebral cortex and appertain to the different layers of cells ; (b) less numerous than in the cerebral cortex, but yet abundant in the altered cells in the foot of the hippocampus ; (c) in the cerebellum the degenerated cells are found in the molecular stratum ; (d) the neuroglia in the whole region studied is more or less altered.

THREE CASES OF BASEDOW'S DISEASE SURGICALLY TREATED.

TRICOMI (in *Policlinico*, Fas. 8, 1896,) reports three cases of Basedow's disease, in which he made a partial resection of both lobes of the thyroid gland. As a result, the exophthalmus disappeared, cessation of the tachycardia, of the diarrhea, of the profuse perspiration, pruritus and other symptoms, increase of strength and weight of patient, and the like. The author believes that the results obtained warrant surgical procedure when the ordinary medical treatment fails to bring relief.

SECONDARY DEGENERATIONS FOLLOWING FOCAL HEMORRHAGES.

G. DOTTO AND E. PUSATERI, of Palermo, have undertaken to study the alterations in the nerve cells of the cerebral cortex secondary to intracerebral focal hemorrhages, and upon the connection between the cortex of the Isle of Reil with the capsula externa in man (*Rivista di Patologia Nervosa e Mentale*, January, 1897).

As a result of their studies they feel warranted in drawing the following conclusions :

1. Following intracerebral focal hemorrhages there follows a secondary atrophic process in the cerebral cortex of the hemisphere of the same side.
 2. That these alterations are not uniformly diffuse, and interest in different degrees the nerve elements.
 3. That the cortex of the Isle of Reil in man is in connection with the external capsule.
-

ABOLITION OF THE REFLEX OF THE TENDON OF ACHILLES IN SCIATICA.

J. BABINSKY (*Gazette des Hôpitaux*, N. 150, 1896,) shows that in healthy individuals the tendon reflex of the Achilles tendon is normal, while in disturbances of the sciatic nerve the reflex is either abolished or greatly diminished. He found this phenomenon not only in cases of intense sciatica with marked muscular atrophy (sciatic neuritis), but also in the lighter forms of ischialgia, designated sciatic neuralgia.

The author refers to two cases where the difference between the behavior of the Achilles tendon reflex on the well side and the affected side was very conspicuous, being totally abolished on the affected side, while on the unaffected side it was normal. This sign, the author concludes, is a valuable diagnostic aid ; it indicates the existence of some organic change in the nerve and excludes the hypothesis of simulation, also aids in differentiating between a true and an hysterical sciatica. In the latter, according to Babinsky, the symptom would be wanting.

CONTRIBUTIONS TO THE CLINICAL AND PATHOLOGICAL STUDY OF ACROMEGALY.

DR. E. COMINI (in the *Archivio per le Scienze Mediche*, Vol. XX., Fas. 4, 1896,) reports three cases of acromegaly. In the first case the objective symptoms of acromegaly are pronounced, the only subjective symptom being a slight morning headache. In the second case there is disturbance of vision, insomnia, symptoms developed rapidly—disturbance of sensation about the arms ; marked improvement followed the use of thyroïdine. In the third case muscular atrophy was present along with a peripheral neuritis. The autopsy on this case showed congestion of the pia ; cerebral

edema ; the pituitary gland enlarged so as to resemble a pigeon's egg, and softened, the posterior part of the sella turcica narrowed and deformed ; normal size of the thyroid gland, weight gr. 100 ; no trace of persistence of the thymus gland ; atrophy of the muscles of the forearms and hands, which stood in contrast to the hypertrophy of the corresponding bones. Microscopical examination showed histological alterations in the hypophysis, in the thyroid and a neuritis of the radial nerves.

THYROIDECTOMY FOR RELIEF OF EXOPHTHALMIC GOITRE.

DR. ANTONIO GANDALFO (*Anales del Circulo Med. Argentino*, October 15, 1896,) reports a case of Basedow's disease in a patient thirty-three years old, who had noticed a swelling of the neck thyroid for the past eight years.

On entrance to hospital at Buenos Ayres a large bilateral tumor of the thyroid was found, more voluminous on the right side, with exophthalmus, Graefe's symptom, enlargement of the heart with mitral direct murmur, tachycardia (110-130), trill in the carotids, memory is poor, is extremely excitable, has flushings—but no chills, skin is pale, anemic ; the whole body trembles ; operated on August 2, 1895. Ten months after the operation his condition was found to be as follows : the thyroid enlargement has, of course, disappeared, the exophthalmus has diminished, especially on the right side ; Graefe's sign no longer exists, while vision is better and clearer ; the heart is still increased in volume, its tones are clear and regular during the day, but at night become irregular, sometimes intermittent ; no murmurs ; pulse is regular, 90-100 pulsations per minute. The sensations of heat, perspiration, the tremor and irritability have disappeared and the patient is regarded as greatly improved.

THE FORMS OF DIABETES.

DR. GEORGE HARLEY (*Indiana Lancet—Lancet-Clinic*) gives the following classification of diabetes :

1. Hepatic diabetes—including the gouty variety.
2. Cerebral diabetes—including all cases of saccharine urine arising from nerve derangements.
3. Pancreatic diabetes—the most deadly form of the disease.
4. Hereditary diabetes—a form by no means uncommon, and one, too, where both brothers and sisters may labor under the dis-

ease without either their maternal or paternal having been affected by diabetes, though more distant members of the family may have suffered from it.

5. Food diabetes—including all forms of saccharine urine arising from the ingestion of unwholesome substances.

In the matter of treatment, besides diet and opium or codeine, Dr. Harley recommends croton chloral, strychnine, phosphoric acid for thirst, and an absolute prohibition of alcohol.

Correspondence.

TUBERCULOSIS CONVEYED BY MILK.

To the Editor :

SIR—I send the following account of some cases which have been brought to my notice, exemplifying the manner in which the bacilli of tuberculosis may be conveyed through the agency of milk. The details of the following cases have been supplied to me by a veterinary inspector, who was engaged on his duties in Cattaraugus county, some sixty miles distant from Buffalo. When there, he was requested by a farmer to inspect and test his two herds of cows. He complied with the request, and in the first herd, numbering eighty, he found eight to be infected with tuberculosis, and in the remaining herd he found twenty-five, out of a total of thirty animals, infected. A neighboring farmer then asked the inspector to test his herd. He did so, and found all healthy. The calves bred from some of these cows were then tested, and it was discovered that many were infected. The owner of the calves gave as a very plausible reason for their infection the fact that he was in the habit of buying skim- and buttermilk, with which to feed these calves, from farmers living in the immediate district, and among others from whom he procured this milk was the farmer whose herds the veterinary inspector had tested and found several of the cows to be suffering from tuberculosis. Of course, the foregoing account only goes further to prove the already well-known fact of the danger of spreading contagion by milk, and of the efficacy of the tuberculin test. In these particular cases, however, the danger affects Buffalo rather closely, for I also ascertained from the inspector that milk from these diseased herds was daily brought into Buffalo and sold on the streets by peddlers. The names of the peddlers

was as a matter of course withheld from me. In connection with this statement I may say that I am at the present time attending a girl suffering from acute tubercular disease, and from whose family history and surroundings I have no doubt has been contracted probably by means of milk. Other instances of a like nature have occurred in my experience and I think it might be as well with regard to the safety of the inhabitants of Buffalo if stringent regulations were introduced in order to absolutely prevent the possibility of infected milk being sold in the streets, and thus remove any chance of the contagion being disseminated by such means.

J. M. O'NEILL, M. D.

852 SENECA STREET.

COLONIES FOR EPILEPTIC PATIENTS.

AT A MEETING of the Ontario Medical Association, June, 1894, Dr. A. McKinnon, of Guelph, introduced a resolution calling attention to the necessity for an institution in Ontario solely for the care of epileptics. Attention had previously been called to the subject in the annual reports of several of the medical superintendents of this province, and a deputation was appointed to place the matter before the Ontario government. Since then, in the state of New York, the Craig Colony for Epileptic Patients has been established, and its success has been such as to reflect great credit upon its projectors and to give additional hope for this very afflicted class. The colony now cares for 200 patients, or about one-fourth of those in the state needing care. Remarkable improvement is noticeable in those already admitted. Nearly every patient has gained in weight and in general health, and in all cases seizures have diminished in frequency. A school has been established, and various industries, as carpentry, sewing, painting, blacksmithing, are carried on. Patients of both sexes work in the field and garden, and 83 per cent. of males and 76 of females have been employed eight hours each day. One-half of the cost of maintenance has been produced by the colony. A similar colony has been established in Massachusetts, and its success is equally satisfactory. Ohio has made separate provision also for this class. Of the 30,000 or 40,000 epileptics in England, 1,100 are now cared for at Passmore Edwards House, a colony established in 1895. In the Province of Ontario there are, according to our asylum reports, over 300 epileptics in the several provincial institutions, besides the much larger number of similar cases which are taken care of at home.—*Canadian Practitioner*, February, 1897.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITORS:

THOMAS LOTHROP, M. D. - - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 234 FRANKLIN STREET, BUFFALO, N. Y.

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THE BUFFALO SANATORY CLUB.

A NEW SOCIETY for the acquisition and dissemination of knowledge relating to the preservation of health was recently organised in Buffalo, and to the best of our information and belief is the first of its kind in the world.

To many of our readers this statement will seem less than luminous—but let us see. This new club, or possibly this newer club, was formed at the instance of medical men, and by the suggestion of medical men—physicians of all so-called schools, or of no school at all, are invited to join its ranks and on a common level to labor for the accomplishment of its purposes. More than this, any person so interested may join this club, and we understand that special effort will be made to induce editors, reporters, microscopists, architects, builders, plumbers, heaters, men and women to join, and to study and work, each in his or her particular way, to gain or spread that greatly-to-be-desired knowledge, the best means for the preservation of health.

The JOURNAL, at present, is simply inclined to claim for the Sanatory Club of Buffalo the distinction of being the first of its kind in the world, and we wish its promoters all possible success.

The Sanatory Club proposes to hold six meetings during the year and at each meeting to discuss some topic in sanitary science; the first of such meetings will be in April, and the topic will be The water supply of Buffalo.

It is proposed that representatives of the press be asked to attend at the deliberations of the club, and we doubt not, by a wise selection of subjects and earnest practical and scientific discussion of the same, that matter will be produced worth reporting and worth reading.

We have for years held the conviction that sanatory knowledge in the study, the laboratory, the sanctum, was too far in advance of the information of the common people ; we, therefore, heartily welcome this new departure, believing that societies like this on popular democratic lines can perform an important part in the dissemination of the facts of sanitation.

THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

THE ninety-first annual meeting of the Medical Society of the State of New York, held at Albany, January 26, 27 and 28, 1897, under the presidency of Dr. James D. Spencer, of Watertown, will always be regarded as one of the most excellent meetings of this society, noted though it is for the good quality of its annual sessions. In the first place, the attendance was large and representative ; in the second, the papers and discussions were well up to the high standard heretofore set by the society ; and in the third, the whole proceedings were marked by a smoothness and freedom from friction that indicated an experienced hand at the helm.

These meetings of late years have been ushered in with a preliminary social function called the ex-president's annual dinner, and this year these dignitaries were entertained at the Fort Orange Club, the usual place, by Dr. F. C. Curtis, secretary of the society. This proved one of the most pleasant and entertaining occasions of its kind. The host displayed an aptitude for preventing monotony as well as for inspiring the occasion with timely remarks that stimulated a flow of wit and eloquence.

The president's inaugural address was a paper of comprehensive dignity and showed a knowledge of the status of the medical profession, not only within the limits of this commonwealth, but all over the Union. His suggestion that a national confederation of committees of legislation of state medical societies, should be organised, to meet annually at Washington, points to the practical solution of an important question. Medical legislation that has its origin outside of medicine is not likely to conduce to its advancement ; it should always originate within the ranks of the profession after due consideration and careful preparation by representative physicians.

The committee of legislation of this society is always one of importance. Dr. A. Walter Suiter, chairman, presented a clear

report of the workings of this committee during the past year showing that it had been active in opposing unwise legislation as well as in promoting measures of professional importance.

The committee on hygiene, Dr. Henry R. Hopkins, chairman, made a full report, in which it was advised that local societies for the promotion of public health should be organised in every county in the state and that reports should be made to this committee. In this way it is expected that an intelligent public sentiment will be created tending to educate the people concerning the essential rules of hygiene and sanitation—measures of importance in the prevention of disease. Buffalo, under stimulus of this suggestion, has taken the initiative in this matter, as will be noted by reference to our leading article in this issue.

The report of the state board of medical examiners attracted attention, and is published in full elsewhere in this edition. A careful reading of it will show the value of the work that is being done in preventing unqualified doctors from practising in this state, and indicates the conscientious performance of an onerous duty by the board.

The scientific work of the society has been epitomised already in the weekly journals and will be published in full in the transactions. An obstetric discussion, in which five or six men of prominence participated, was a fitting termination to the afternoon session of the first day. The discussion on the relation of the drinking of impure water to disease is calculated to yield beneficial results. Dr. T. B. Carpenter, of Buffalo, distinguished himself in an able paper on the methods of the purification of impure water. The discussion on diseases of the rectum, led by Prof. Joseph M. Mathews, of Louisville, Ky., marked a distinctive advance in this line of study. Dr. Mathews is a man of science, an easy and forceful speaker, and presents his points in a logical manner that carries conviction.

The president's annual address dealt with the subject of The country doctor, and was interestingly handled by a man of experience. It was well received by the society and commanded a vote of thanks at its close.

The annual dinner at the Kenmore concluded the functions of the second day. It was well attended by representative physicians and guests of prominence. Dr. J. M. Mathews made a capital speech, in which he again demonstrated his oratorical powers with a vocabulary of elegant diction. He received congratulations on

all sides for his eloquent and manly stand with reference to medical educational problems that are just now absorbing so much attention. His peroration was an appropriate anti-climax to the remarks of Mr. William Barnes, Jr., that were so out of place.

At the Thursday morning session the scientific work was finished and the society adjourned.

The following officers for the ensuing year were elected : President, Seneca D. Powell, of New York ; vice-president, Lucien Howe, of Buffalo ; secretary, F. C. Curtis, of Albany ; treasurer, C. H. Porter, of Albany. Chairmen of committees—Arrangements, W. J. Nellis, of Albany ; by-laws, H. D. Wey, of Elmira ; hygiene, Henry R. Hopkins, of Buffalo ; legislation, A. Walter Suiter, of Herkimer ; ethics, J. M. Winfield, of Brooklyn ; prize essays, E. D. Fisher, of New York ; publication, F. C. Curtis, of Albany.

TOPICS OF THE MONTH.

HON. WILLIAM P. LETCHWORTH, who for twenty-three years has been a member, and a portion of the time president, of the State Board of Charities, recently made an inspection of the poor-houses of the eighth judicial district. From this report we glean some interesting data. It appears that when this inspection was made there were 1,151 inmates in the eight poor-houses in the district. Of this number 69 per cent. were men and 31 per cent. women. The number of men has increased since 1869, while the number of women has decreased, as there was then 56 per cent. men and 44 per cent. women. The decrease in the number of women is attributed, in part, to the increased number of avenues open to their employment and to their more temperate habits, especially in the use of tobacco and alcohol.

The inmates in general are reasonably well fed and clothed, according to Mr. Letchworth, though in some instances underclothing was needed. A greater variety of foods, especially vegetables, might be furnished by some of the institutions without increasing the expense and with general beneficial influence. There had been some improvement in the care of the sick ; especially had there been greater attention paid to bathing and general personal cleanliness. Some of the poor-houses, however, were insufficiently supplied with water, a defect that ought to be speedily remedied.

He pointed out some defects in the Erie County poor-house which may be grouped under the general statement that there is

lack of proper discipline, suitable care and healthful employment of the inmates, together with want of economical methods of purchasing supplies, and a deficiency in general good administration. The closets and storerooms are disordered, there is a want of systematic order on the premises, indicated by the improper disposition of waste and rubbish ; a neglect of the grounds, as seen in the growth of tall weeds about the yards and paths ; a limited garden space and unproductive farming.

Mr. Letchworth is an expert on the subject of which he writes, and while he admits that there has been a general improvement in the care of the poor during the past twenty years, he yet thinks that Erie county is considerably behind other counties in the conduct and efficiency of its almshouse. This report ought to stimulate improvement on the part of the officials who control this important charity.

Koch's mission to South Africa, upon which he set out about the middle of November last, is one of exceptional interest. It seems that the foremost living bacteriologist has been commissioned to discover and deal with the supposed germs of one of the most contagious and destructive of epizootic diseases. This malady is ravaging a large portion of the continent, impoverishing millions of people, besides working incalculable harm in many and divers ways not easily mentioned. This rinderpest, or cattle plague, is not a new disease, for it has been known for nearly two centuries. It has not appeared, however, in this country until late years. There was an outbreak of it in Great Britain in 1865, when the government ordered the slaughter of all infected herds. Little is known of its etiology, though when it raged in England in 1865 it was studied by a royal commission, with Sir Richard Quain at its head. That was, however, before bacteriology was known as a science, hence the inquiry resulted in little more than proving the contagiousness of the disease and the futility of the then known methods of treatment.

Dr. Koch will, of course, investigate it chiefly from the bacteriological standpoint, and he will be assisted by his colleague, Dr. Kohlstock, and perhaps others. We await with considerable interest the result of this investigation.

CHRISTIAN SCIENCE, so-called, a pretended method of cure that is neither Christian-like nor scientific, is having hard lines in Castile,

Wyoming county, N.Y. The services of a coroner were called for, who empaneled a jury to investigate the circumstances attending the death of a child which have caused indignation and excitement in that community. It appears, according to reports, that the services of a physician were dispensed with and that "Christian science" was invoked to conduct a labor. There is much indignation over the circumstances, and on Sunday, February 14th, the pastor of the Presbyterian church in that village delivered a sermon in which he severely denounced "Christian science" and those who practise it. He very justly claimed that it was opposed to Christianity and all the sciences, and affirmed that it was quite time for the people to take issue against such doctrine when murder had been committed in the village by the practice of "Christian science" in a case of confinement.

This reverend divine has distinguished himself by propounding most sensible conclusions, and it would be well if other clergymen followed his estimable example.

The coroner's jury has severely censured all connected with the unfortunate affair, especially one of the Christian science fiends from Buffalo as chiefly responsible.

UNDER the title Sanitary trivialities, the *Journal of the American Medical Association*, in its issue of January 30, 1897, makes editorial comment upon the ordinance passed by the common council of Buffalo relating to the sale of nursing bottles. The *Journal* very properly observes that the passage of the ordinance referred to signalled another victory for the commissioner of health, Dr. Ernest Wende, over popular incredulity and ridicule. Buffalo, says the *Journal*, has already accomplished a great deal in municipal sanitation. The regulation of the milk supply and the identification and isolation of diseased cattle in herds are all-sufficient. A register, too, is kept in the health office of the location of every fatal case of diphtheria, scarlet and typhoid fevers, and if these are found to occur along any special milk delivery route, all the milk on that route is carefully traced to the dairy, thence to the herd.

After making other general remarks, the *Journal* concludes as follows: "One is confronted everywhere by apparently trivial sanitary neglects, each of which in its possibilities for evil will be found anything but trifling. Dr. Wende deserves to be congratu-

lated on his success in suppressing the rubber tube of the nursing bottle, and the city of Buffalo for having a commissioner of health who is not deterred by ridicule from attacking so-called sanitary trivialities.”

THE season is again upon us when mischievous bills relating to education are flooding the legislature at Albany. Of the total number at present introduced bearing on this question we are not advised, but we are familiar with two, the pernicious effects of which, if passed, would be far-reaching. One of these has been introduced into both houses, and has for its object the incorporation of the so-called New York Law School, which is a private institution already chartered by the regents, but subject to their control as to preliminary requirements and rules for graduation. The bill presented seeks to confer upon the school authority to regulate its own standards.

The second bill to which we invite attention is known as the “optometry bill,” introduced in the assembly by Mr. Horton, of Wayne, and is No. 459. This measure seeks to confer the right upon opticians to examine eyes with reference to refractive errors under the influence of mydriatics or otherwise, as is now only permitted to be practised by regularly educated licensed physicians. The effect of this bill, if passed, will be to degrade the high office of physician, and it would be otherwise pernicious in making inroads upon the present splendid educational system as administered by the regents of the University of the state of New York at Albany. Educators, physicians, scientists and public-spirited citizens should unite in opposing both of these measures, that are simply introduced in the interest of individuals and are opposed to the interests of the general public.

It is interesting to note that progress is making in reference to questions pertaining to public health in many portions of the country. In Michigan quarterly meetings are held in different parts of the state under the direction of the state board of health, in which the local health authorities meet for conference and discussion of sanitary problems. In Pennsylvania there is an organisation called the Associated Health Authorities, which has lately held its fourth annual meeting at Harrisburg. It was opened with an address by Governor Hastings, president of the organisation,

who said, among other things, that he was interested in no subject more than in that of public health. Pennsylvania, he said, instead of being at the foot of the list of states as she is in all sanitary measures, should be in the lead; that the time had come when she should have laws enacted for the preservation of the health of her people, for the collecting of vital statistics, the protection of her water supplies, and the furtherance of her sanitary work. He called attention to the fact that in the great state of Pennsylvania the present legislation covers the half of it and he hoped that these associated health authorities would remedy the condition. A number of interesting papers were read and discussed and the meeting adjourned after manifesting much enthusiasm.

Personal.

DR. HENRY P. FROST has been appointed assistant physician at the Buffalo State Hospital, vice Dr. Percy Bryant, appointed superintendent of the Manhattan State Hospital, New York City. This appointment was made under the civil service law, which confers authority on the superintendent of the State Hospital to appoint his assistants from those already in service.

Dr. Frost comes to this new position from the Willard State Hospital and has been six years in service. He is a Virginian by birth, but has lived in New York a number of years.

Dr. Bryant was a most competent official, but Dr. Hurd seems to have been fortunate in obtaining so worthy a successor to his accomplished first assistant, whose many Buffalo friends part from him with regret.

Obituary.

SIR THOMAS SPENCER WELLS, Bart., F. R. C. S., died at Cap d'Antibes, near Cannes, January 31, 1891, in the seventy-ninth year of his age. He was the eldest son of Mr. William Wells, of St. Albans, and was born at Hertford, February 3, 1818. In 1839-40 he was at St. Thomas's hospital, in 1841 he became a member of the College of Surgeons, and soon entered the Royal Navy as assistant surgeon. He served in the naval hospital at Malta for six years,

but finally, in 1853, settled in practice in the west end of London. In 1854 he was elected surgeon to the Samaritan free hospital. He served in the Crimean war, but returned to his hospital work at the Samaritan upon the cessation of hostilities. In April, 1854, Wells assisted Baker Brown at his eighth ovariectomy, at the Essex hospital, which was the first time that Wells had ever seen the operation.

In February, 1858, Sir Spencer made his first completed ovariectomy, and in June, 1880, the number of his ovariectomies had reached 1,000. He continued in active service at the Samaritan hospital for twenty years, resigning in 1878. During this time he published many interesting works and monographs largely devoted to the consideration of diseases of the ovaries and ovarian and uterine tumors, and his final work appeared in 1885, entitled *Diagnosis and Surgical Treatment of Abdominal Tumors*.

Many years ago Sir Spencer Wells purchased the David Garrick estate, at Golder's Hill, on the North side of London, consisting of forty acres of ground, that he developed into a beautiful country seat. The house, as remodeled, is as nearly a perfect home as one could wish, and all the surroundings are attractive. It is just three-quarters of an hour's ride from his country home to his consulting rooms, in Grosvenor street, Grosvenor square. Lady Wells, a daughter of the late Mr. James Wright Sydenham, died in 1886. Sir Spencer leaves six daughters, one of whom married, in 1889, Mr. Swinburne-Hanham. He is succeeded to the baronetcy by Arthur Spencer Wells, M. A., Cantab., his only son, who was private secretary to Sir William Vernon Harcourt when he filled the office of chancellor of the exchequer in the last Gladstone ministry.

Sir Spencer Wells was made president of the Royal College of Surgeons in 1882, and has received numerous honors from all parts of the civilised world. His body was cremated at Woking. It is safe to say that no man of the present century has left a more indelible stamp of his work on the surgery of the abdomen than Sir Thomas Spencer Wells.

DR. PERRY H. MILLARD, of St. Paul, Minn., dean of the College of Medicine and Surgery at the State University, and professor of surgery in that institution, died in Johns Hopkins hospital, at Baltimore, February 1, 1897, of pernicious anemia, in the forty-ninth year of his age. He was a native of New York, received his pre-

liminary training at the Ogdensburg Educational Institute, and took his doctorate degree at the Rush Medical College in 1872. After practising medicine several years at Stillwater, Minn., he removed to St. Paul, where he at once took a high position, and continued in active practice until within a few weeks of his death.

Dr. Millard was brought into national prominence a few years ago through his advocacy of a higher standard of medical education, and he became a leader in the contest in Minnesota for a medical practice act, which was adopted as a model by many other states. He was an active organiser and promoter of the American Medical College Association, where again his especial aptitude for leadership in encouraging a higher average standard of medical teaching became apparent. He was also instrumental in organising the national confederation of state medical examining and licensing boards, was chairman of the executive council of that organisation and also chairman of the committee on minimum standard of requirements for admission to practice, which committee is to report at the annual meeting of the confederation to be held at Philadelphia, May 31, 1897.

Dr. Millard was also the principal mover in projecting, organising and developing the department of medicine in the University of Minnesota. He secured the surrender of the charter of private colleges which united in its establishment, and it was through his unceasing labors and persistent enthusiasm that it became a part of the educational system of the state of Minnesota.

The death of Dr. Millard leaves a wide place that is not easy to fill. He was a man useful in so many ways, and, withal, was equipped with so much rare good sense and judgment, which tempered an aggressiveness that never knew anything short of success, that his loss is felt not only in his own city and state, but throughout the union. An appropriate memorial, adopted by the college faculty of which he was a member, sets forth in brief though fitting terms the marvelous aptitude of the man for the places that he occupied, and speaks in tender terms of the widespread affliction that his death has caused.

DR. JOHN C. LEWIS, of Panama, Chautauqua county, N. Y., died of pneumonia, at his residence in that village, February 6, 1897, aged 48 years.

Dr. Lewis was born at Ellery, N. Y., August 6, 1848, was a graduate of the Westfield Academy, and took his doctorate degree

at the medical department of the University of Buffalo in the class of 1874. He settled at Panama soon after graduation, and has been the leading physician in that vicinity for many years.

He was an active member of the Medical Society of the County of Chautauqua, his name having appeared on nearly every program for years. He was a member of the Methodist Episcopal Church; he was also a member of several beneficiary orders. He took a deep interest in his profession and was also a student of botany and astronomy. He married Sarah E. Brownell, March 3, 1870, who, with three children, survives him. Dr. Lewis, at the time of his death, was editor of the *Panama Herald*, and one of the most enterprising men in the community. The medical profession of western New York, in his death, has lost one of its ablest members and the community one of its best citizens. C. A. E.

Society Meetings.

THE Buffalo Academy of Medicine held meetings during the past month as follows :

Section on Obstetrics and Gynecology.—Tuesday evening, January 26, 1897, program : Résumé of fifty years of obstetrical practice, by Dr. John Hauenstein.

Section on Surgery.—Tuesday evening, February 2d, program : Results of 350 operative cases of inguinal hernia in the male, by Dr. William B. Coley, surgeon to the Hospital for Ruptured and Crippled, New York; Use of the galvano-cautery within the nose and throat, with demonstration, by Dr. Horace Clark.

Section on Medicine.—Tuesday evening, February 9th, program : Should the marriage contract be limited by law, by Dr. Rulison; Protective inoculations in typhoid fever and cholera, and the rôle of therapy in tetanus, tuberculosis, streptococcus infection and syphilis, by Dr. Frank J. Thornbury.

Section on Pathology.—Tuesday evening, February 16th, program : Cultivation of gonococci and exhibition of culture, by Dr. F. S. Busch; The workings of the Bureau of Animal Industry at East Buffalo, by N. P. Hinkley, D. V. M.; also, a

special meeting of the whole Academy, with reference to pernicious legislation at Albany.

Section on Obstetrics and Gynecology.—Tuesday evening, February 23d, program : Drainage following abdominal operations, by Dr. Chauncey P. Smith ; Treatment of shock and collapse following operations, by Dr. John Parmenter.

THE New York Academy of Medicine celebrated its semi-centennial anniversary at the Carnegie Hall and at the Academy on Friday evening, January 29, 1897.

The President of the United States delivered the principal address, having come on from Washington at the instance of Dr. Joseph D. Bryant, president of the Academy, for that purpose. Dr. Bryant opened the exercises with a brief address, in which he referred succinctly to the purposes of the Academy as the representative body of the medical profession of the state of New York and its services to the municipality in the matter of many plans for the public health. Dr. Samuel S. Purple, one of the eight living founders of the Academy, followed with a brief address, in which he alluded to its early organisation and to the struggles incident thereto. Dr. Lewis A. Sayre, another of the founders, gave some interesting reminiscences of the early days of the Academy, and outlined some of its services for the health of the city, particularly in the matter of the establishment of quarantine. Dr. Abraham Jacobi, a former president of the Academy, was the formal orator of the evening. He outlined more at length the scope of the Academy, defining it the neutral ground of the profession, the only temple of safety and impartiality. He called special attention to the battle the Academy had made against quackery and begged the people to urge their representatives in legislative bodies to second their efforts in all possible ways. He touched upon the marvelous advance recently made in handling dangerous diseases, and declared that most of them had resulted from animal experimentations, for which he entered a strong and eloquent plea. The address of President Cleveland was well received, and after the exercises many of those present assembled at the Academy building, where a reception in honor of the president was held, followed by a collation.

College and Hospital Note.

THE NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL.—An interesting correspondence has lately been published in the *Medical Record* concerning this institution, which want of space prevents us from quoting in full. It would appear that an attempt has been made to prevent the Post-Graduate from obtaining the usual appropriation from the board of estimates and apportionment. Dr. D. B. St. John Roosa, president of the Post-Graduate School and Hospital, makes conclusive answer in the *Medical Record*, January 30, 1897, to any objections that may have been raised to the appropriation. In this letter it is shown that the school over which Dr. Roosa so appropriately and ably presides is doing a great charity work, and is in the highest sense a charitable organisation. There is no reason why discrimination should be made in these appropriations. The Post-Graduate is most assuredly entitled to its proportion of the annual sum allotted to similar charities.

Book Reviews.

PTOMAINS, LEUCOMAINS, TOXINS AND ANTITOXINS : or, The Chemical Factors in the Causation of Disease. By VICTOR C. VAUGHAN, Ph. D., M. D., Professor of Hygiene and Physiological Chemistry, and FREDERICK G. NOVY, M. D., Junior Professor of Hygiene and Physiological Chemistry in the University of Michigan. New (third) edition. In one 12mo volume of 603 pages. Philadelphia: Lea Brothers & Co. 1896.

The authors tell us that "it is now generally recognised that those diseases that cause the greatest mortality, and consequently are of the greatest importance, are in reality cases of poisoning. The poison may be possessed of life, and, therefore, under favorable conditions, capable of indefinite increase in quantity after its introduction into the body, or it may be dead when introduced or generated in the body. . . . Pathogenic germs are living poisons, and every infectious disease is actually an intoxication. Not only are there chemical factors in the causation of disease, but specific chemical agents are now being employed in the prevention and cure of disease."

Every part of this book is intensely interesting, but especially impressive is the chapter on the history of the bacterial poisons. Beginning with a brief account of the investigations of Albert von Haller, this historical sketch is carried down to the present day.

The foods which are liable to contain bacterial poisons are enumerated and discussed, and a chapter is then devoted to the methods used in their examination.

Chapter V. treats of the General considerations of the relation of bacterial poisons to infectious diseases, and is naturally very interesting to the careful student.

Considerable space is then devoted to the consideration of the bacterial poisons in detail.

Chapter VIII., however, is one to which the progressive medical man would turn and read with great care and profit. It treats of immunity, antitoxins and serumtherapy. We are told by the authors that "the subject of immunity is one of the most interesting and at the same time one of the most perplexing problems with which the student of scientific medicine can busy himself. To render man immune to such deadly infectious diseases as tetanus, diphtheria, cholera, typhoid fever and tuberculosis is the task that now occupies the time and energy of many honest toilers in the laboratories of science." "Exposure to a given disease for successive generations is one of the factors in evolution of natural immunity." "We do not claim that this is an essential factor, nor will we attempt to estimate its relative importance, but will content ourselves with naming it as a factor." If the animal economy can become habituated to the use of such poison as morphine, cocaine or nicotine, why may it not become immune to the action of relatively large quantities of bacterial poisons? We must take into consideration, of course, the fact that immunity is often only a lessened susceptibility, and this point is thoroughly considered by the authors in the discussion of natural immunity. "It is enough to state here that natural immunity is essentially cellular, and that the formation of bactericides and antitoxins is dependent upon cellular activity of certain tissues of the invaded host."

Artificial or acquired immunity is then discussed at length, all of the latest investigations upon this subject being concisely and clearly presented to the reader.

The authors then take up the subject of antitoxins. "We know very little concerning these substances. They are believed to be proteid bodies, but this belief is not founded upon any positive knowledge. So far we can only recognise their presence by their effects." Behring finds that the diphtheria-antitoxin is not altered by peptic digestion. If this be true, it cannot be serum-albumin or globulin, but must be a nuclein, since this is the only proteid-like body in the blood that is not altered by peptic digestion."

"The relation of nuclein to immunity has been demonstrated recently by Vaughan, who has rendered rabbits immune to the diplococcus of pneumonia by previous treatments with nucleinic acid obtained from yeast. The injections of nuclein increase the number of polynuclear cells and thus strengthen the resistance of the body."

The preparation of antidiphtheritic serum is then briefly given. "This curative serum has now been used in the treatment of many thousands of children, and the following facts seem to be demonstrated: 1. The treatment is practically free from ill-effects. 2. The mortality has only been from one-half to one-fourth what it was during the year preceding the introduction of this agent."

Under the heading of The importance of bacterial products to the toxicologist, the authors say:

The presence in the cadaver of substances which give not only the general alkaloidal reactions, but respond to some of the tests which have hitherto been considered characteristic of individual vegetable alkaloids, must be of the greatest importance to toxicologists. The possibility of mistaking putrefactive for vegetable alkaloids should always be borne in mind by the chemist in making his medico-legal investigations.

While there is no doubt that this is a question of importance to the toxicologist, still, we are inclined to the belief that interference with the tests are many times, at least, exaggerated. There can be no doubt but that the humane man would give the accused the benefit of any doubt that might be produced by the interference with recognised characteristic tests, but in every instance these tests must be made with reagents which are known absolutely to be pure and strictly in accordance with those conditions which have been shown to produce required results. Then, again, the absolute purity of the solvent and the repeated purification of the alkaloid extracted are points of the greatest importance, which every chemist of training and experience knows. Under this heading of The importance of bacterial products to the toxicologist, the authors devote nearly ten pages to the consideration of "a morphine-like substance" and its interference with the tests for morphine when present in the body. After a careful consideration of all they have to say upon the subject, we are inclined to the verdict of the Scotch jury—not proven.

They tell us that the putrefaction which occurs in the dead body is anerobic. Has this been proven beyond a question of doubt? Is oxygen absolutely absent during the putrefaction of the dead body after burial? It appears to us that the results of the work of Mr. H. T. Smith, which were reported to the American Chemical Society at its midsummer meeting, rather point to the fact that putrefaction of dead bodies after burial does not interfere with the identification and detection of morphine.

The chemistry of the ptomains then follows, and here we have an excellent account of the individual ptomains, thus far isolated, their preparation, properties, chemical composition and physiological effects.

The leucomains are then considered from the standpoint of their history, preparation, properties, chemical composition and physiological effects.

Taken as a whole, this book is one of intense interest, and

should be read and studied by every progressive student of scientific medicine.

The typography and general make-up of the book are excellent.
J. A. M.

THE PRACTICE OF MEDICINE. A Text-Book for practitioners and students, with special reference to diagnosis and treatment. By JAMES TYSON, M. D., Professor of Clinical Medicine in the University of Pennsylvania, and Physician to the Hospital of the University; Physician to the Philadelphia Hospital; Fellow of the College of Physicians of Philadelphia, etc., etc. Octavo, pp. xvi.—1183. Illustrated. Philadelphia: P. Blakiston, Son & Company, 1012 Walnut street. 1896.

It has been thought by some, since the field of medicine has become subdivided into numerous specialties, that there would soon be no room for the so-called general practitioner; but the frequent appearance of works on the practice of medicine during the past few years would seem to indicate that such a belief is not well grounded.

The present treatise is announced as having been the result of several years' labor and as representing in a large measure personal work, though it does not pretend to be based entirely on personal practice.

Tyson opens his text-book with a section on infectious diseases, and proceeds at once to the consideration of typhoid fever. He places the bath treatment at the head of the remedies when it can be employed. Rest and liquid nourishment go hand in hand with it, but medicine plays but very little part in its management. He insists upon a careful watchfulness during the convalescence, and says that the specific treatment of the disease by serum is as yet tentative, and results admit of no definite conclusions. The advanced thought of the profession finds itself in close touch with Tyson on this subject.

Diphtheria is defined as an acute, contagious inflammatory disease due to inoculation with the Klebs-Löffler bacillus, and especially characterised by the formation of false membranes and by secondary constitutional infection. We have given this in full because we regard it as about the best definition yet offered. Tyson holds to three principal indications in the management of diphtheria—namely: first, to prevent constitutional infection; second, to support the system; and third, to combat the toxins. This picture should be kept in the mind of every physician called upon to minister to this malady.

The second section considers diseases of the digestive system, and diseases of the stomach occupy necessarily the largest space in this subdivision. In late years probably more attention has been bestowed on gastric disorders than upon those of any other portion of the digestive tract, because it is in the stomach that many wasting diseases originate. To correct the early faults of digestion

should be the first duty of the physician, lest neglect here may lead to future severe, if not irremediable, complications. Tyson has dealt with the subject very ably and with due conservatism. In the subdivision devoted to the consideration of appendicitis will be found all that can be said under its medical management. This being essentially a surgical disease, Tyson here very properly directs that as soon as the diagnosis of appendicitis is established, indeed pending its settlement, a competent surgeon should be associated with the physician, for the reason that in the vast majority of cases operative treatment is sooner or later demanded, while the necessity for such treatment is best settled by daily conference. This is most sensible advice, and when the profession can be made to accept it as a governing principle appendicitis will be less destructive. Intestinal obstruction is always an important subject and one that requires great skill in diagnosis. Tyson has written many practical sentences on this branch of the subject and utters the dicta of experience.

The third section takes up diseases of the respiratory system. Pneumonia always claims an important place under this head, and Tyson has not neglected to give it consideration in accordance with its importance. He advocates general blood-letting in proper cases, and dry cupping when adynamia is too great to admit of the former. Bleeding he believes not only relieves distressing symptoms, but lessens the crisis and shortens the disease. We are of the opinion that this remedy should be employed with great discretion and limited to robust young subjects who become victims of this disease.

Pulmonary tuberculosis Tyson hesitates not to state is an infectious disease due to the lodgment and proliferation of the tubercle bacillus in the lung substance. He believes it to be an infectious disease, the route of invasion being either by the air-passages or the blood. This is a sound position on which to anchor, and will lead the profession out of a darkness that has heretofore shrouded the malady. We do not mean to be understood that this attitude of Tyson is new, but rather that it is becoming more and more accepted by experienced clinicians, of which Tyson may be accepted as an exemplar.

The fourth section takes up for consideration diseases of the heart and blood-vessels. A study of these affections always possesses extreme interest, and any new light is more than welcome. The neuroses of the heart are briefly but ably handled in this treatise, and Tyson displays in their consideration not only a knowledge of the subject but discretion in handling it. The sensible, though brief, consideration of the treatment of tachycardia, bradycardia, stenocardia and arrhythmia is commended to the searcher for information on these subjects. Arterial sclerosis is one of the most important diseases of the blood-vessels, and is very ably and fully discoursed upon.

In section five, diseases of the blood and blood-making organs

are taken up and dealt with understandingly. Progressive pernicious anemia is one of the most subtle and difficult maladies with which a physician is called upon to cope, and what Tyson has to offer on the subject is clear and helpful, if not an entirely satisfactory solution of the problem. As a drug, arsenic has always been a chief reliance, and Tyson so regards it; but it must be supported by other hygienic and food aids in order to reap substantial benefit from its employment.

A short section, number six, is devoted to the consideration of diseases of the thyroid gland, in which myxedema and cretinism are considered under separate subdivisions.

Then comes section seven, in which diseases of the urinary organs are taken up, and here is afforded an opportunity for a clinician like this author to display his skill and knowledge. As a test for albumin, Tyson regards the heat and nitric acid tests as the most delicate and reliable. It should, however, be used under skilful hands in order to yield the most reliable information. Diseases of the kidney are dealt with in considerable detail, and while diseases of the bladder occupy less space they are yet presented with much clearness and satisfaction.

In section nine we find constitutional diseases, such as rheumatism, gout, diabetes mellitus, incipient lithemia, and the like, dealt with in considerable detail as well as with skilful judgment.

Section ten, in which diseases of the nervous system are considered, is, as might be expected, a long one, since the nerves themselves permeate every fiber and organ; and this, we presume, is the reason why nerve specialists, at least some of them, have appropriated nearly every part of the body to themselves in the practice of their chosen field of specialism. If the general practitioner does not look out betimes he will find himself supplanted by the specialist in nervous diseases. However, Tyson has presented this part of his treatise in minute detail and in a fashion that will commend itself both to the general physician and nerve specialist.

The closing sections present many of those diseases not included in the foregoing general heads. For instance, section eleven treats of diseases of the muscular system; section twelve, of the intoxications; section thirteen, of the effects of exposure to high though bearable temperature; section fourteen, of animal parasites and the conditions caused by them; section fifteen, contains a summary of symptoms following over-doses of poison, alphabetically arranged. To this is added a table of minimum dose which has caused death, and maximum dose followed by recovery. In an appendix is given a table for reducing the metric system into English, and one to convert degrees of the Fahrenheit thermometer to centigrade, and vice versa. A well-prepared index closes the volume.

It is quite in keeping with the proprieties of the occasion, and it is without detracting from the merit of any other recent treatise on medicine, that we venture the opinion that Tyson's work will

not only prove a text-book in name, but will become one in reality. The general arrangement of the treatise is such as appeals to the modern-trained practitioner of medicine, and the clinical facts recorded in it possess a clearness and value that will promptly bring it to the front of medical literature. The publishers have not neglected to perform well their part in the making of a handsome and useful treatise on medicine.

SYSTEM OF DISEASES OF THE EYE. By American, British, Dutch, French, German and Spanish authors. Edited by WILLIAM F. MORRIS, A. M., M. D., and CHARLES A. OLIVER, A. M., M. D., of Philadelphia, Pa. Volume I. Embryology, Anatomy and Physiology of the Eye. Octavo, pp. xvi.—670. With twenty-three full-page plates and 362 text illustrations. Philadelphia: J. B. Lippincott Co. 1896.

A long time has elapsed since the announcement of the preparation of this work. At last the first volume has made its appearance. The original plan was to issue the "system" in two volumes, but that has been changed, and it is now being published in four. The purpose of the editors is to cover in a thorough, but not too diffuse manner, the whole field of ophthalmology, both theoretically and practically. They have associated with them many able collaborators, and hope to have produced a work "which will take the place in the English language similar to that occupied by the *Handbuch* of Graefe and Saemisch in German and by the *Traité Complet* of de Wecker and Landolt in French." How well they have succeeded can be judged better when the work is completed. This first volume, however, is a splendid contribution to ophthalmology. It is not encumbered by a mass of useless material, but is solid meat from first to last.

The first section is on the Development of the eye, and is written by John A. Ryder, Ph. D., professor of comparative embryology in the University of Pennsylvania. It is a good résumé of the subject and occupies seventy pages of the text.

The anatomy of the orbit and the appendages of the eye constitutes the next section of thirty-eight pages. It is a most clear and instructive description by Dr. Thomas Dwight, Parkman professor of anatomy in Harvard University. Much information is presented here which one would look a long way to find elsewhere.

The anatomy of the eyeball and of the intraorbital portion of the optic nerve is quite an extended section of 108 pages, and is written by Dr. Frank Baker, professor of anatomy in the University of Georgetown. Like Prof. Dwight's article, it enters into a detailed description of the parts of which it treats and embodies a vast amount of information, some of which is not otherwise easily accessible. Dr. Baker has deviated from the plan of the other writers and introduced in foot-notes the synonyms, and oftentimes the etymology, of the anatomical words and terms used.

The largest section of the book is the next one, embracing 166 pages. In it Dr. George A. Piersol, professor of anatomy in the University of Pennsylvania, describes at length The microscopical anatomy of the eyeball. The subject is handled by a master-hand and the result is well-nigh perfect.

The anatomy of the intracranial portion of the visual apparatus comes next, and is treated by Dr. Alex. Hill, master of Downing College, etc., Cambridge, England. Within the space of thirty-four pages he gives the most recent facts and views in regard to the cerebral visual apparatus.

The next forty-two pages are devoted to Congenital malformations and abnormalities of the human eye. This section is contributed by William Lang, F. R. C. S., and E. Treacher Collins, F. R. C. S., both well-known ophthalmologists of London. It is an excellent résumé of congenital defects of the eye.

Dr. Edward Jackson, professor of diseases of the eye in the Philadelphia Polyclinic, contributes the following section on The dioptries of the eye. In forty-six pages he gives the principles of reflection and refraction of light as applied to the eye. The different states of refraction of the eye, both with and without accommodation, are described and the means of correcting deviations from the emmetropic condition are briefly touched upon. Fuller discussion of the treatment of errors of refraction is reserved for a future volume. Dr. Jackson here, as always, writes clearly, comprehensively and to the point.

The next section takes up the subject of The perception of light. The author, J. McKeen Cattell, M. A., Ph. D., professor of experimental psychology in Columbia College, occupies thirty-four pages, and enters into consideration of some of the more abstruse phases of physiology, which pertains to the perception of light. He deals with the intensity of light, the perception of small differences, the comparison of magnitudes, methods for studying the accuracy of perception, intensity in relation to color, sharpness of sight, field of vision, fatigue, positive after-images, negative after-images, etc.

The section following, constituting forty-two pages, is also more or less abstruse, and is contributed by Dr. Eugen Brodhun, of Berlin, Germany. It treats of binocular vision, confliction of the field of vision, apparent and natural size of objects. Perception of depth in monocular vision and in binocular vision, binocular or stereoscopic vision, the horopter, and the like.

The next section is Normal color perception and is written by Dr. William Thomson, professor of ophthalmology in the Jefferson Medical College, assisted by Dr. Carl Weiland, clinical assistant in the Jefferson Medical College Hospital. This is a well-written chapter and the authors may be considered as authorities on the subject with which they deal. They accept the Young-Helmholtz theory of color vision.

The concluding section of thirty-four pages is written by Dr.

Carl Mays, of the University of Heidelberg, and is a learned presentation of the Photo-chemistry of the retina.

As will be seen by the above presentation of the divisions and authorship of this volume, the elementary foundations of ophthalmology are broadly and solidly laid. Each section is almost a treatise in itself. The work is elaborately and beautifully illustrated and put up in the publishers' highest art. It merits in every way the unstinted praise of critics, and should be sought by every careful student of ophthalmology. A. A. H.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY. Being a Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, drawn from Journals, Monographs and Text-Books of the leading American and Foreign Authors and Investigators. Collected and arranged with Critical Editorial Comments by J. M. Baldy, C. H. Burnett, Archibald Church, Arthur H. Cleveland, Colman W. Cutler, J. Chalmers DaCosta, W. A. N. Dorland, Louis A. Duhring, V. P. Gibney, Homer W. Gibney, Henry A. Griffin, John Guit  ras, C. A. Hamann, H. F. Hansell, B. C. Hirst, E. Fletcher Ingals, W. W. Keen, H. Leffman, Henry G. Ohls, H. T. Patrick, William Pepper, Wendell Reber, D. Riesman, Louis Starr, Alfred Stengel, G. N. Stewart, and Thompson S. Westcott. Under the general editorial charge of GEORGE M. GOULD, M. D. Profusely illustrated. Royal 8vo, pp. 1257. Philadelphia: W. B. Saunders. 1897.

This is the first of the year-books to present itself, and it would seem not only on this account, but for the further reason that it is so comprehensive in plan and so elaborate in detail, that it also presents a first claim upon time and space.

The present volume is constructed upon the precise lines of the first one issued, which appeared last year. Some of the editors have been changed, but out of the total number, twenty-eight, seventeen are Philadelphians. We suggested last year that it would seem wise for the editor-in-chief to distribute his associates over a wider section of the country, with the object of giving his book a greater national identity. We still think this suggestion a wise one.

The immensity of this work is something almost startling, and betrays an indefatigable industry on the part of the editor-in-chief and his associates that is worthy of praise and imitation. The accuracy of the references made at the foot of each page has been tested in a number of instances at random and we have not been able to detect an error. It is a fact that should be remembered regarding works of this kind that they interfere in no sense with the subscriber's necessity for medical journals. This book rather accentuates the importance of taking a liberal number of medical journals, for when one sees in it a reference relating to a subject in which he is interested he regrets that he is not able to lay his hand upon the original journal quoted in his own library. We mean to

be understood as saying that this work and those of a similar nature accentuate the necessity of possessing the leading medical journals. It is a satisfaction to the *BUFFALO MEDICAL JOURNAL* to find itself often quoted in this work, and we trust that its columns will prove of sufficient interest to warrant a continuation of frequent reference to them. A busy physician needs to find a subject quickly, and this year-book is one of the best indexes to the literature of 1896 that a physician could possibly possess. The summary at the head of each article giving the direction and results of the year's work is an interesting feature which will undoubtedly prove useful.

We could wish that the editor had not seen fit to drag into his preface reference to a controversy that the profession in general has very little interest in. There are always two sides to every question, and we have no doubt the publishers referred to considered their course justifiable.

The index of this work is remarkable for its comprehensiveness. There are sixty triple-column pages of it that enables one to make quick reference to any subject between its covers.

The book is well printed, but it is rather heavy for cloth binding. We advise purchasers to procure it in leather. We shall look forward each year to the advent of this admirable compilation of the work for the preceding twelve months.

REPORT OF THE COMMISSIONER OF EDUCATION FOR THE YEAR 1894-95.

In two volumes. Washington: Government Printing Office. 1896.

This report has been received with greater promptitude than usual, which is a commendable fact. We have heretofore pointed out in these columns that the value of these reports was detracted from to a considerable degree by their tardiness, and we are pleased to note a disposition to improve upon the old slow-going fashion in regard to this matter.

In the chapter on professional education, by Dr. A. Erskine Miller, is to be found a grouping of interesting data regarding the requirements for the practice of medicine in the several states. The author of this chapter seems to be pleased because there are more medical students, in proportion to population, in this country than in any other part of the civilised world. He says:

The people themselves are making no complaints that there are too many physicians: they content themselves with the thought that it is the same with physicians as with any commodity—the greater the supply the less the cost. The medical men themselves are the only ones who have any reason to complain, and is it not probable that some of them are falling into the way of some trades unions in endeavoring to shut out accessions, in order that they may enjoy exclusive possession—and monopoly?

We are surprised that any professional man, and especially a physician of sufficient education to justify his appointment to an

important place under the department of education, should be allowed to print such rot in a document issued and sanctioned by the government, at a time, too, when every country in the civilised world is doing its utmost to establish and maintain a high standard in the profession of medicine. It smatters too much of quackery to find such doctrines put forth by a government official.

The general work of the commissioner of education is to be commended, and in the volume before us appears a full record of the work of his department for the year to which it pertains.

TRANSACTIONS OF THE TEXAS STATE MEDICAL ASSOCIATION. Held at Fort Worth, Texas, April 28, 29, 30 and May 1, 1895. Printed by order of the association. 1896.

The Texas State Medical Association has always been famous for the excellent character of its work as told in its annual volume of transactions, which is a welcome visitor to the library of every one that takes an interest in medical progress. It is an interesting fact that the several state medical societies are now contributing more to the general *esprit de corps* of the profession than any other organisations, and nothing bespeaks the progressive spirit of a physician in a higher degree than a manifestation of an active interest in his state medical society. He should not only attend its meetings with regularity, but he should secure its volumes of transactions and keep them within easy reach for reference on his library shelves.

The volume under consideration contains many interesting scientific papers and discussions upon the same. A list of members of the association, of auxiliary societies in affiliation with the state society, and of the officers of the association since its formation is given. This volume is worthy of a more permanent cover. Paper furnishes very poor binding for a medical book that is needed for frequent reference.

ANATOMICAL ATLAS OF OBSTETRIC DIAGNOSIS AND TREATMENT. By OSCAR SCHAEFFER, M. D. Small octavo, pp. xii.—234. Illustrated. New York: William Wood & Co. 1896.

This volume, to borrow the author's own words, deals especially with the morphology of the female pelvic organs as the anatomical basis in the physiological and pathological phenomena of pregnancy and labor.

Schaeffer has presented the matter in a most interesting fashion and has displayed artistic talent and anatomical accuracy in his engravings. The drawings are quite original, and are many of them printed in colors. It is a book that may be regarded as a valuable aid to the study of pregnancy and labor which every teacher will appreciate. The work closes with a section on general observations on obstetric therapeutics, in which the most useful

obstetrical remedies with their dosage and therapeutic indications are given, as well as directions for obstetric antiseptics. It is a work that should find its way into the library of every practical obstetrician.

A TEXT-BOOK FOR TRAINING SCHOOLS FOR NURSES, including Physiology and Hygiene and the Principles and Practice of Nursing. By P. M. WISE, M. D., Medical Superintendent St. Lawrence Hospital; Editor of *The State Hospitals Bulletin*, etc. With an introduction by Edward Cowles, M. D., Physician-in-Chief and Superintendent of the McLean Hospital, Boston, Mass. In two volumes. New York: G. P. Putnam's Sons. 1896.

Many text-books on the subject of nursing have heretofore been published, but none has attempted to cover the field in the same manner as does the one before us. In addition to the preliminary work prescribed, and the routine care detailed during an ordinary course of training, we find in this work explicit directions with reference to the special care of the insane. The author, Dr. Wise, is an expert alienist, and is now at the head of the lunacy commission in this state. He is, therefore, a competent authority to write on this latter branch of the subject. But he is, moreover, well qualified to teach nurses in all the departments in which they may be called upon to serve, for he was a well-trained physician before he became an alienist; and here we may be permitted to remark that this is the only proper way to become skilful in the management of the insane. A man must first be a competent physician and acquire that competency by several years' practice before taking up insanity as a specialty.

An appendix to the work gives, first, a table of weights, measures and symbols; a table of drugs, doses, action and uses; alimentary preparations for the sick; and finally a glossary of technical words and terms, the whole followed by a very complete general index.

We believe this treatise will be adopted as a text-book in every training-school in this country. Its excellence is such as to justify this belief, and surely training-schools cannot afford to dispense with the best.

ANNUAL REPORT OF THE STATE BOARD OF CHARITIES FOR THE YEAR 1895. Transmitted to the legislature, March 25, 1896. Albany, N. Y.: Wynkoop Hallenbeck Crawford Company, State Printers. 1896.

The State Board of Charities always issues an interesting report. The Soldiers and Sailors' Home at Bath is the first institution considered in this volume, and the president of the board, William R. Stewart, Esq., gives the results of his inspection December 5, 1895. At that time there were 1,267 inmates in the institution, including fifty-seven officers and employees.

The hospital contains eight wards, furnishing 180 beds, 130 of which were occupied. It is stated that from eighty to 100 deaths a year occur at the home.

In connection with this institution we are pleased to note that Col. Chas. O. Shepard, of Buffalo, has lately been appointed its superintendent, and we feel sure that under his administration the home will take rank second to no charity of its class in this country.

Dr. Chas. S. Hoyt, superintendent of state and alien poor, remarks in his report that the number of alien paupers removed from the poor-houses, alms-houses and other charitable institutions and sent to their homes in the different countries of Europe during the fiscal year ending September, 1895, was 261, *i. e.*, to England, 41 ; to Ireland, 37 ; to Germany, 53 ; to Austro-Hungary, 31 ; to Italy, 88 ; to Russia, 7 ; and to Holland, 41. Their condition when landing in this country was as follows : Crippled, 17 ; paralytic, 9 ; epileptic, 7 ; aged, infirm and decrepit, 22 ; feeble-minded, 63 ; vagrant and variously diseased, 98 ; otherwise disabled, 48.

The per capita expenditure necessary to the deportment of these people was \$20.45. This is an economical way to dispose of a class of individuals that is being unloaded upon this country through the mistaken kindness of friends or the inadequate circumspection of immigration officers.

An elaborate report is made by the Hon. Wm. P. Letchworth, concerning the poor-houses, in the 8th judicial district. Commissioner Letchworth also presents a brief report concerning the Thomas Asylum for orphans and destitute Indian children.

In many other respects this report is one of interest.

ELEVENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH AND VITAL STATISTICS OF THE COMMONWEALTH OF PENNSYLVANIA.
Transmitted to the Governor December 1, 1895. Pennsylvania :
Clarence M. Busch, State Printer. 1896.

The report of this health board is not unlike those of other states in most respects. It, however, not only contains its own by-laws, but a grouping of the laws of the commonwealth of Pennsylvania relating to the protection of life and health passed at the legislative session of 1895. From it we learn that Pennsylvania has established a state board of veterinary medical examiners, whose provision it is to regulate the practice of veterinary medicine and surgery in the Keystone state. In this respect it seems to have followed pretty closely the example of New York. A number of other laws relate to the prevention and control of infectious diseases ; the regulation and sale of poisons ; the prevention of pollution of water streams ; the regulation of house-drainage and sanitation ; the promotion of cleanliness in public schools ; to provide against the adulteration of food, and many other important laws looking toward the prevention of disease.

While it is an admitted fact that in public sanitation Pennsylvania has not kept pace with many other states, yet now she is evincing a spirit of progress in this respect that is commendable. This report indicates an activity all along the lines of public health protection and the prevention of disease, and is a credit to the officers who are mainly responsible for the volume, especially the secretary, under whose direction it has been prepared.

ESSENTIALS OF PHYSICAL DIAGNOSIS OF THE THORAX. By ARTHUR M. CORWIN, A. M., M. D., Demonstrator of Physical Diagnosis in Rush Medical College, etc. Second edition, revised and enlarged. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

The author of this useful aid to the study of diagnosis of diseases of the thorax has availed himself of the opportunity afforded by a second edition to revise the original text and to add a section setting forth the signs found in diseases of the chest. It is really an outline of the essentials of the science of physical diagnosis as applied to the thorax. These essentials have been grouped in an appropriate manner conforming to the topography of the several regions, and the whole arrangement is such as to aid the student of internal medicine. We regard it as a useful guide to the study of diseases of the thorax.

THE EYE AND ITS CARE. By FRANK ALLPORT, M. D., Minneapolis, Minn., Professor of Clinical Ophthalmology and Otology in the Minnesota State University; President of the Minnesota State Medical Society; Secretary of the Ophthalmological Section of the American Medical Association, etc. Illustrated. 12mo, pp. 174. Philadelphia. J. B. Lippincott Co. 1896.

This little work is designed for popular instruction. It takes up in a general and nontechnical way the anatomy and physiology of the eye, refraction, glasses, and the care of the eyes. It does not, like many of its class, undertake to become a treatise on diseases of the eye, but it intelligibly presents just such information as laymen ought to possess, especially teachers. A. A. H.

TRANSACTIONS OF THE MEDICAL SOCIETY OF VIRGINIA. Twenty-sixth Annual Session, held at Wytheville, Va., September 3, 4 and 5, 1895. LANDON B. EDWARDS, M. D., Secretary. Richmond: J. W. Ferguson & Son, Printers. 1895.

The Medical Society of the Old Dominion has long been distinguished for the high character of its scientific work. The volume before us contains many valuable paper, among which may be mentioned the president's address on the Intellectual life of the medical man; Dr. John Herbert Claiborne's paper on The Old Virginia Doctor; Diagnosis and treatment of cholelithiasis by Dr. George Ben Johnston, of Richmond. A biographical register

of the fellows of the society forms an interesting supplement to the volume. The secretary, Dr. Landon B. Edwards, of Richmond, publishes a prefatory note, in which he accounts for the delay in the issue of the volume through the fact that authors did not forward their manuscripts promptly, and he adds that authors who expect their papers to receive attention should not take their manuscripts away from the desk of the secretary. He also says that some of the proof-sheets sent by courtesy to the authors were never returned. This admonition would have a forceful application in the ranks of some other medical associations.

TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY. Volume XXI. For the Year 1896. Philadelphia: Wm. J. Dornan, Printer. 1896.

The volume before us is a tangible evidence of the continued prosperity of this society, which is yearly working along the lines of advancement in its chosen field of research. One of the most interesting papers in this book is by J. Clifton Edgar on Aids in obstetric teaching. This is a department in which the author of the paper is distinguishing himself and in which he bids fair to become a leader. There is a constantly-increasing need for improvement in medical teaching, and especially in the obstetric field. Physicians of experience and observation are gradually reaching the conclusion that no one ought to be permitted to begin the practice of medicine who has not had an under-graduate experience of at least thirty cases of labor.

It was fitting that at this meeting the distinguished founder of the association, Dr. James R. Chadwick, of Boston, should be chosen president in commemoration of the twentieth anniversary of the society. The volume closes with memorials of Robert Battey and Thomas Kieth.

TRANSACTIONS OF THE MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND. Ninety-eighth Annual Session, held at Baltimore, Md., April, 1896, also Semi-Annual Session, held at Belair, Md., November, 1895, and Special Memorial Meeting in Baltimore, December 14, 1895. Baltimore, Md.: The Deutsch Lithographing Company.

This book is issued by one of the oldest state medical organisations in the country, yet it is about the smallest volume that any of them sends forth. It contains minutes of the proceedings, the president's annual address and the annual oration, together with reports of committees and lists of officers and members, to which is added in this volume an address by Dr. Chadwick, of Boston, on medical libraries, their development and use, delivered at the formal opening of the new hall and library, January 11, 1896. The scientific papers read and discussed at the meeting, for some inexplicable reason, are not published.

TRANSACTIONS OF THE COLORADO STATE MEDICAL SOCIETY. Twenty-sixth Annual Convention. By-Laws and List of Members. Denver, June, 1896. Published for the Society. Denver, Col.: The Smith-Brooks Printing Company. 1896.

Colorado seems to possess an uncommonly active and progressive state medical society. We have heretofore had occasion in these columns to refer to the value of the work done at its meetings and the excellent form in which the proceedings are published. The present volume indicates that no step backward has been taken by this society. The book is full of interesting, well-written papers, and some of the discussions are extremely spirited and creditable. We bespeak continued success for the society, that now numbers about 300 members.

BOOKS RECEIVED.

A System of Practical Medicine. By American authors. Edited by Alfred Lee Loomis, M. D., Late Professor of Pathology and Practical Medicine in the New York University, and William Gilman Thompson, M. D., Professor of Materia Medica, Therapeutics and Clinical Medicine in the New York University. To be completed in four imperial octavo volumes, containing from 900 to 1,000 pages each, fully illustrated in colors and in black. Vol. I. Infectious diseases. Just ready. Vol. II. Diseases of the respiratory and circulatory systems, and of the blood and kidneys. In press. Vol. III. Diseases of the digestive system, of the liver, spleen, pancreas and other glands; gout, rheumatism, diabetes and other constitutional diseases. In active preparation. Vol. IV. Diseases of the nervous system and of the muscles; diseases of doubtful origin, insolation, Addison's disease, etc. In active preparation. Per volume, cloth, \$5.00; leather, \$6.00; half-morocco, \$7.00. Philadelphia and New York: Lea Brothers & Co., Publishers.

Twentieth Century Practice. An international encyclopedia of modern medical science. By leading authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In twenty volumes. Volume X. Diseases of the nervous system. New York: William Wood & Co. 1897.

Principles or Guides for a Better Selection or Classification of Consumptives, amenable to high altitude treatment and to the selection of patients who may be more successfully treated in the environment to which they were accustomed previous to their illness. By A. Edgar Tussey, M. D., Adjunct Professor of Diseases of the Chest in the Philadelphia Polyclinic and School for Graduates in Medicine, and Consulting Physician to the central branch of the Y. M. C. A. Gymnasium, Fifteenth and Chestnut streets. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1896.

Genito-Urinary Surgery and Venereal Diseases. By J. William White, M. D., Professor of Clinical Surgery, University of Pennsylvania, and Edward Martin, M. D., Clinical Professor of Genito-Urinary Diseases, University of Pennsylvania. Illustrated with 243 engravings and seven colored plates. 8vo. pp. xx.—1,061. Philadelphia: J. B. Lip-pincott Company. London: 6 Henrietta street, Covent Garden. 1897.

A Manual of the Practice of Medicine, prepared especially for students. By A. A. Stevens, A. M., M. D., Lecturer on Terminology and Instructor in Physical Diagnosis in the University of Pennsylvania; Demonstrator of Pathology in the Woman's Medical College of Pennsylvania; Physician to St. Agnes's Hospital, to the out-patient department of the Episcopal Hospital and to the Southeastern Dispensary, Philadelphia. Fourth edition, revised and enlarged. Illustrated. Pp. xviii.—511. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

Elementary Bandaging and Surgical Dressing, with directions concerning the immediate treatment of cases of emergency for the use of dressers and nurses. By Walter Pye, F. R. C. S., late Surgeon to St Mary's Hospital. Revised and in part re-written by G. Bellingham Smith, F. R. C. S., Surgical Registrar, Guy's Hospital. 16mo, pp. 218. Seventh edition. Philadelphia: W. B. Saunders, 925 Walnut street. 1897.

Literary Notes.

DR. DEERING J. ROBERTS, chairman of section "B" medical history (Tennessee especially), books, statistics, etc., of the Tennessee Centennial and International Exposition, has issued the following circular: The Centennial and International Exposition, to celebrate the one hundredth year of statehood by the citizens of Tennessee, is now an established fact, and the opening day is fixed for Saturday, May 1st, prox. Already the sum of over \$500,000 has been subscribed by the citizens of the state alone, most of which has been very economically and judiciously expended in the erection of large, commodious, elegant and suitable buildings, and in the ornamentation of the grounds. An additional \$130,000 has been appropriated by Congress for a special government exhibit. The state legislature now in session will undoubtedly appropriate \$100,000 at least, if not more. Many counties in the state are preparing for special exhibits; and other states and cities are taking active and important steps to have a full representation before the large multitudes of people from all parts of the world, who will visit the capital city of the volunteer state at some time between the 1st of May and the 31st of October next.

A separate and special building for medical and surgical appliances and hygiene will be provided for everything pertaining to these sciences and arts. This building will be specially attractive to the many medical men who will be in attendance from all parts of the world at some time during the season. A dozen or more prominent medical organisations have signified their intention of

meeting in Nashville during the centennial, as well as many doctors who are in affiliation with other orders, societies and organisations that will meet here.

The committee in charge of section "B" medical history and literature beg leave to respectfully suggest that you keep a special file or files of your periodical from the first of the current year until the opening day, to be placed in the space allotted, and that you send one or more copies regularly for inspection by the visitors during the progress of the exposition. Should you deem proper to avail yourself of this opportunity of bringing your publication to the notice of our visitors, an early communication to that effect will be appreciated. At a later date full instructions will be given as to when and how this special file and subsequent issues of your publication may be sent.

E. B. TREAT, medical publisher, of New York, announces that he has in press for early issnance the *International Medical Annual*, being the fifteenth yearly issue of that well-known one-volume reference work. The prospectus shows that the volume will be the result of the labors of upward of forty physicians and surgeons of international reputation, and will present the world's progress in medical science.

The publisher states that he has spared no expense in its production, while the editorial staff has devoted a large amount of time and labor in so condensing the literary matter as to confine the volume within a reasonable size without omitting facts of practical importance.

The value of the work will be greatly enhanced by the thoroughness of illustration; both colored plates and photographic reproductions in black and white will be used wherever helpful in elucidating the text.

It is a work to be commended to all who need a condensed presentation of the literature of the past year.

The volume will contain about 700 pages. The price will be the same as heretofore, \$2.75. Full descriptive circular will be sent upon application to the publisher, 5-13 Cooper Union, New York.

STATE REQUIREMENTS FOR THE PRACTICE OF MEDICINE is the title of a brochure of 85 pages, standard octavo, compiled and issued by Dr. Charles McIntire, of Easton, Pa. This is a guide to the quali-

fications and methods of procedure to enter upon the practice of medicine in the several states of the union. It will be found invaluable to physicians, teachers, students and especially recent graduates, and can be obtained for the small price of 50 cents enclosed to Dr. McIntire.

We consider it by all odds the most important document that has been issued relating to state license to practise medicine.

WILLIAM R. WARNER & Co., pharmaceutical chemists, Philadelphia, have just completed a 300-page pocket medical dictionary, size, $6\frac{1}{2}$ by 4 inches, which will be ready for delivery about March 10, 1897. It is the intention of the Messrs. Warner to offer this dictionary to the medical profession at a figure approximating the cost, or about 75 cents. Advance sheets indicate the type and presswork of the book to be excellent and the definitions simple yet comprehensive.

Orders should be addressed to William R. Warner & Co., 1228 Market street, Philadelphia, Pa.

THE *Journal of Cutaneous and Urinary Disease* is edited by Drs. James C. Johnston and George K. Swinburne, and published by the Physicians' Publishing Co., at 115 West Eighty-fourth street, New York. We are glad to be able to oblige our contemporary, which is conducted on the most dignified and scientific lines, by giving space to the above notice. It is a journal worthy of the esteem and confidence of the medical profession.

THE twentieth Year-book of the New York State Reformatory, located at Elmira, is before us. Besides the usual reports of officers, it contains the statistics of inmates, the physician's report and many other interesting data. Under the head of Observations and notes we find much material that will prove of interest to philanthropists, scientists and physicians.

The section on anthropology contains a grouping of nineteen tables, the study of which adds interest to the book. There is no more humane institution than the Elmira Reformatory, whether viewed from the standpoint of economics, morality, philanthropy or Christianity. As usual, this book is well illustrated and handsomely printed.

McKESSEON & ROBBINS have published the Physician's Vest-Pocket Formula Book, which will be found very useful to the practitioner. It contains a table of weights and measures, antidotes to poisons, various tables of reference, and a very complete series of tables, showing the composition of foods and alcoholic liquors. These tables should prove valuable to the physician in cases where special attention to dietary is necessary. The book also contains an extended series of notes on some of the new pharmaceutical preparations and a complete list of formulæ of the McKesson & Robbins Gelatine Coated Pills. A copy will be sent free of charge to any of our readers on application to McKesson & Robbins, 91 Fulton street, New York, with mention of the JOURNAL.

THE *Laryngoscope*, published at St. Louis, has been selected as the official organ, for the year 1897, of the Laryngological Section of the New York Academy of Medicine. This selection, and the great probability of the same journal being chosen by other laryngological, rhinological and otological societies as their official organ, would indicate that the *Laryngoscope* has become what its proprietors stated they intended to make it, *i. e.*, *The American Journal of Record*, for the specialties represented.

TEN CENT JOURNALISM.—It is not so very remarkable that certain medical publishers should be able to secure a list of subscribers, when subscriptions are accepted for six months "on trial," for 10 cents! But what must an advertiser think of the employment of such measures to pad a subscription list? Is it not confessedly a weakness on the part of the publisher to admit that he cannot get subscribers unless he accepts them at the paltry price of 20 cents a year? Surely, he must have sample copies "to burn." Shades of the immortal Flint! Has it come to this, that the advertiser must not only pay for the space he occupies, but for the doctors' subscriptions as well? A strange part of it is that so many of the names on these "10 cent" lists should have no initials prefixed. Not quite sure, evidently, of the correct names of all these bona-fide 10 cent subscribers. Wonder what the postoffice department would say about a subscription list gained in this manner. The section of postal laws pertaining to the admission of second-class matter in the mails distinctly states that the privilege shall be at once denied whenever it shall be shown that the publication is

issued "primarily for advertising purposes, or if the subscription price is nominal." Would you call 20 cents "nominal"?—*American Medical Journalist*.

Items.

A COURSE IN BACTERIOLOGY.—Dr. Frank J. Thornbury desires to announce a course in bacteriology, beginning on the 18th of February, to be held in the bacteriological laboratory of the University of Buffalo. It will be limited to ten men, and composed chiefly of physicians. The fee is \$10, and the hours for work 8 to 10 p. m., three evenings each week for six weeks. The course will comprise the preparation of culture media, general bacteriological technique, a study of each of the standard nonpathogenic organisms and then the pathogenic ones, animal experiments being used in illustrating the etiological characters of the latter. The molds will be studied, and the examination of air, earth, water and milk will be taken up in detail.

Special attention will be given to subjects of practical clinical importance, as the examinations of the nasal and pharyngeal secretions for the influenza bacillus, the serum diagnosis of typhoid fever, the finding of the faden bacillus in cases of carcinoma, and the culture and staining of the typhoid, diphtheria, influenza, tubercle, and glanders bacillus and the gonococcus and cholera spirillum; also the isolation of typhoid bacillus from water. The technique for testing the relative merits of disinfectants will be elaborated upon. Some immunising experiments in typhoid fever, cholera and diphtheria will be made.

The system originally outlined by Professor Koch for courses in bacteriology in the Hygienic Institute, Berlin, will be followed.

J. PIERPONT MORGAN, according to a recent notice in the newspaper press, has given the munificent sum of \$1,000,000 to the New York Lying-in Hospital. Mr. Morgan's letter said, in substance, that he believed a suitable building should be erected on the property now owned by it and that he had had plans prepared to erect the same at his own expense, the building to cost about \$1,000,000. The only condition attached to the gift is that Mr. Morgan shall have assurance that the hospital will have funds enough to continue its work after the building is completed. The

gift was promptly accepted by the board, which is confident that it can satisfy the donor as to the one condition. The board expect the new building will be begun shortly and, when completed, it will be one of the finest hospitals of its kind in the world.

Too MANY men of the medical profession, it is feared, are apt to pin their faith to a drug that bears a long chemical name, manufactured perhaps in Germany, which is considered a guarantee of its purity and ethical property. The fact is, most of such drugs are patented, hence are irregular from an ethical standpoint. It is a satisfaction, however, to know that many American manufacturing chemists are producing pure medicines at a less cost, and with equally or, perhaps, more certain results in their therapeutic application. Attention is invited, in this connection, to the advertisement of the Charles Roome Parmele Company in this issue of the JOURNAL.

AS SUCCESSOR to the famous physiologist, Du Bois-Reymond, head of the Physiological Institute in Berlin and professor of physiology in the University, Professor Hermann Munk will probably be chosen, since Herr von Kries-Freiburg, to whom the place was offered, has declined it. Professor Munk, who is fifty-eight years old, was a pupil of Du Bois-Reymond, and is a member of the Berlin University faculty and professor and director of the physiological laboratory of the Veterinary High School in Berlin. He has been a member of the Academy of Science since 1880. His selection meets with warm approval among the scientists of Berlin.

DR. HERBERT U. WILLIAMS will commence his spring class in examination of blood, sputum, and the like, in a few weeks. The course is limited to a small number of physicians and will take place evenings at the University of Buffalo.

THE DIET IN CHRONIC DIARRHEA OF INFANTS.—Angel Money (*Treatment of Diseases of Children*) says if the child be under one year of age the diet must not go beyond the range allowed at that period of life. Barley water and whey, perhaps milk according to circumstances and Mellin's Food, raw meat juice, white of egg or yellow of egg with water, mutton broth, weak beef tea, is a sufficient list of foods. It is generally asserted that animal broths are deleterious in diarrhea, used in small quantities cold. He has not noticed any prejudicial effect, and certainly the number of stools has not appeared to be increased.

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Original Communications.

ANATOMICAL CONSIDERATION OF BRAIN SYPHILIS, WITH REPORT OF THREE CASES.¹

BY WILLIAM C. KRAUSS, M. D.,

Professor of nervous diseases, Medical Department of Niagara University, Buffalo, N. Y.;
Fellow of the American Neurological Association.

WHILE the clinical picture of syphilis of the brain may be a varied and highly-colored one, the anatomical easel upon which it rests is quite simple and uncomplicated.

It is my purpose today to consider the anatomical bearings of brain syphilis and to illustrate the same by several clinical cases which have recently come under my observation. As a rule, syphilis attacks the brain in one of three different ways: First, by setting up an inflammatory process in the walls of the arteries, more especially those situated at the base of the brain; second, by the formation of gummatous tumors in the cortical layer or at the base of the brain; third, by developing a meningitis through exudation and inflammation, continuing until the neighboring cortical surfaces become involved, assuming a form of meningo-encephalitis.

I shall omit all reference to the degenerative processes affecting the brain exemplified by dementia-paralytica—where the dictum of syphilitic infection is still debatable, and hence uncertain—also those cases of multiple cerebro-spinal syphilis.

The process involved in these three above-mentioned lesions is identical, the underlying cause being, no doubt, a bacillus of which no positive knowledge is as yet obtainable. The bacillus described by Lustgarten, in 1884, has been found in syphilitic sores and condylomata, but no satisfactory experimental evidence has yet been obtained, and until pure cultures and other proofs are brought forward not much reliance can be placed on this organism. The bacillus of Eve and Lingard, described in 1886; that of Disse and

1. Read at the twenty-ninth annual meeting of the Medical Association of Central New York, at Rochester, October 20, 1896.

Taguchi, also discovered in 1886, and that of Golasz, described in 1894, are all open to the same criticism as Lustgarten's, and the true bacillus must remain a suppositious factor until its identity shall be satisfactorily proven.

Subsequent to the activity of the bacillus irritation, there follow inflammation, cell-proliferation, new growth of vascular tissue, tissue growth, and then a degenerative process and disintegration.

Heubner, in 1874, first described accurately the changes taking place in the arteries, especially at the base of the brain, resulting in an arteritis or endarteritis, and found existing either as an independent disorder or as part of a local syphilitic affection. An endarteritis is found, due to the pouring out of round cells from the *vasa vasorum*, an endothelial proliferation, followed by thickening of the intima, fenestrated membrane and adventitia. As a result, the lumen of the vessel is narrowed, even occluded, or the intima becomes roughened and changed and a thrombus forms, which may in turn give rise to an embolus, or through the weakening of the muscular coat of the arteries minute aneurisms may form and their rupture cause hemorrhages. Two serious brain lesions may follow such an arteritis—first, softening due to the thrombus or embolus, and secondly, destruction and pressure upon the brain tissue by the hemorrhage.

An interesting medico-legal case of the latter came under my observation about three years ago, briefly narrated as follows :

F. S., aged 35 years. Swedish extraction : sailor by occupation ; had sailed the lakes for seven or eight years, making his home at Buffalo. He was in the habit of spending his nights when on shore at a notorious dance hall in the infected district. One night he chanced to meet a woman to his liking, who was a singer in the resort, and whose husband was "the strong man," doing certain tricks, as stone-breaking, tearing chains asunder and the like. The couple proceeded up-stairs to a private room, drank heavily of strong liquors, and, if the report of the woman can be believed, the sailor made unsuccessful attempts at her person. Leaving the room and descending the stairs they met the husband, and on being informed of what had transpired he struck the sailor on the jaw, felling him, and in a few moments expired. Post-mortem examination of the cranial cavity revealed a large flattened clot of blood in the posterior fossa of the cranium—the same having escaped from a large opening in the basilar artery, near its bifurcation into the posterior cerebrals. The basilar artery was the seat of an arteritis, also endarteritis, with thickening of the lumen in some places and thinning in others. It was at one of the thinned portions where the

rupture occurred. Other evidences of cerebral or arterial disease were wanting, and the anatomical diagnosis was reported as "cerebral basilar hemorrhage."

Of course, no history of syphilis could be obtained, but the seat of disease, condition of the artery, occupation, habits and surroundings of the man, leave little doubt as to some previous syphilitic inoculation. No doubt the woman's husband was, to a great degree, a victim of circumstances. With the degenerated condition of the arteries, as was found in the case, the sexual excitement might of itself have produced the arterial rupture, and this, further accentuated by the increased arterial tension due to the large amount of stimulants which he had taken, would have required but a very slight shock, either mental or physical, to have produced a disruption of the diseased vessel. The force of the blow was of itself not so important under these circumstances, although at the trial much stress was laid on the assumption that the prisoner must have dealt a terrible knock-out blow, being noted for his strength, which, in fact, consisted only in stage tricks, being actually possessed of only ordinary strength.

Syphilitic inflammation of the brain resulting in gummatous tumors or syphilomata is of quite common occurrence, and is the most characteristic lesion of syphilis of the nervous system. Such tumors are generally situated at the base of the brain, less frequently upon the convexity of the frontal and parietal convolutions. They are scarcely ever deep-seated, but are found taking their origin generally from the pia, but may also originate from the arachnoid, dura or blood-vessels. They are irregular in shape, varying in size from a pea to a walnut. As usually met with, they are moderately firm yellowish-white nodules, having on section an appearance suggestive of the cut surface of a horse-chestnut.

Anatomically, the periphery consists of translucent fibrous-looking tissue, intimately associated with the neighboring structures, so that enucleation is impossible, or a dense infiltration of small spheroidal cells, while the center is in a state of cheesy degeneration. These growths are sometimes associated with a localised meningitis, also a specific inflammation of the arteries.

An interesting case of syphiloma came under my notice two years ago, which, although not verified by autopsy, was nevertheless so evident as to leave no room for doubt :

A. B., female ; age, 23 ; weight, 85 pounds ; height, 5 feet 1 inch ; married when 19 years old ; has no children, but gives history of two miscarriages. Her husband, a worthless scamp, acquired syphilis some three years before his marriage, but never underwent any systematic

treatment. The patient became infected soon after marriage, showed secondary manifestations within a year, and when 22 years old began to experience symptoms pointing to cerebral implication. She complained bitterly of severe occipital headaches, boring and bursting in character, more intense at night, with slight intermissions during the day. Nausea and vomiting, with dizziness and loss of vision, soon appeared, the latter increasing until she became totally blind. There were also present other symptoms denoting some basal disturbance, as double vision previous to the total blindness, ptosis and paresis of all the extremities.

I was called in consultation by Dr. Seeley, of Attica, N. Y., to see her about six months after the beginning of the cerebral symptoms and found her condition as follows: A small, emaciated young woman, in bed, suffering with intense occipital headaches, dizziness, nausea and vomiting at irregular intervals during the day and night. Head is sensitive to percussion, more especially over the occiput. Eyes: orbits are convergent, especially the right; slight bilateral ptosis; pupils dilated and eyes have a glassy appearance. Ophthalmoscopic examination shows optic atrophy; vision of both eyes is *nil*; tongue shows no deviation, but is thickly coated; olfaction and audition are unimpaired; sensation of the face undisturbed. Arms: muscles of the arms are much wasted; no contractures; tendon reflexes exaggerated; muscular strength almost gone. Legs: limbs are also much atrophied; patellar reflexes greatly exaggerated; ankle clonus is present; strength of the legs is almost entirely lost; is unable to stand on her feet, but can extend the leg slightly on the thigh. Urine is increased in quantity, but contains neither albumin nor sugar; the bladder and rectal sphincters are weakened.

After hearing the history of the case, there remained no doubt as to the diagnosis of cerebral syphilis, being in all probability a gummatous tumor, situated in the cephalic portion of the pons, or in the intercrural space, and extending into both crura cerebri.

The location of the gumma was based upon the presence of a diplegia, with exaggerated reflexes, and symptoms denoting a lesion along the course of the oculo-motorius nerves.

The patient died two weeks after my examination, and autopsy was refused.

The third variety of brain syphilis—gummatous meningitis or meningo-encephalitis—affects both the cortical and basal membranes, the latter, however, much more frequently. The gummatous tissue forms a diffused gray gelatinous layer covering a considerable extent of the surface or base of the brain. The membranes over the convexity are thickened, matted together by gummatous tissue, and the brain surface beneath is softened.

The pathology of the process is well described by Ziegler as follows :

The first thing observed in the meninges is a small patch of inflammation which soon leads to the formation of a gray, or grayish-red, semi-translucent or gelatinous knot of granulation tissue. In the earlier stages the tissue of the knot is extremely cellular and contains a number of new-formed capillaries. As the process goes on, some of the granulation tissue becomes fibro-cellular and some undergo caseation. The adjacent brain tissue seldom or never remains intact, the inflammation extending into the cortex along the pial sheaths of the vessels, also directly. When arterial branches pass through these granulomatous foci they are speedily infected, resulting in endarteritis. The same fate awaits the nerve fibers passing through the inflamed region and undergo inflammatory infiltration, and afterwards becoming enclosed and beset by coarse fibrous tissue they speedily atrophy and break down. The smaller foci can undoubtedly disappear by reabsorption, and the thickened meninges may present the appearance of an old simple inflammation.

This form of brain syphilis is most amenable to treatment, as the following case will show, but such treatment must be heroic, methodical and persistent :

Annie C., age, 25 years ; height, 5 feet 4 inches ; weight, 120 pounds ; complexion, dark ; constitution, rather frail. Father and mother are living and healthy ; grandparents lived to old age. There is no history of syphilis, tuberculosis or cancer obtainable. Never had any of the diseases of infancy and was always in the best of health. In 1891 she committed an indiscretion, ran away from home and lived for four years in a sporting house. In September, 1891, she acquired syphilis and was treated for primary and secondary symptoms.

In September, 1895, she first began to have pains in the head, sharp, shooting and continuous, beginning at the vertex and radiating downward in all directions. The head was tender and sensitive and felt as if "something were growing inside of it." She complained much of nausea and vomited occasionally. Bowels were loose ; sleep much disturbed. Her physician prescribed mercurial preparations and potassium iodide. The headaches not diminishing, I was called in consultation by Dr. Briggs, of Buffalo, November 10, 1895, and found a thin, pale, emaciated young woman, whose body and extremities were covered with the characteristic roseola of syphilis, suffering with excruciating pains "all over the head." She and her husband claim that the eruption followed the administration of mercury. The head was very sensitive on pressure, and was very tender and sore over the nucha. Temperature was normal ; pulse was 80. I advised mercurial inunctions and the protoiodide of mercury pills, $\frac{1}{2}$ grain, three times daily. After

the fourth inunction, salivation appeared, and immediately the head pains began to diminish, so that in three days the head was entirely free from pain and she was able to be about attending to her duties. The inunctions were discontinued, but the protoiodide pills were taken regularly. She was practically in good health for six weeks ; when as the rash began to disappear the headaches reappeared with greater intensity than ever before. They were accompanied by dizziness, tendency to fall to the right, nausea, vomiting and photophobia. She could not see to read or write and complained of pain in the eyeballs. On January 3, 1896, I was again called to see her and found her more emaciated and debilitated than at my first visit. As on the previous visit, she complained of the head pains, nausea and vomiting, unable to keep even water on her stomach, while vision was markedly diminished, and the room was heavily curtained on account of the photophobia. The acme of pain she referred to the left side of the head, over the frontal and parietal regions, with sensitiveness to percussion over this area. She has of late been misapplying words, calling for a spoon when she wanted a toothbrush, "cigarette" for a "glass of water," would call the nurse by the wrong name, and at times would not be able to make herself understood at all. The lower part of the face is slightly paretic. The eyes : ocular muscles not affected, as the orbits are freely movable in all directions : the pupils are widely dilated, with some difference between the two sides. The fundus shows an acute papillitis (choked disc) on both sides. Audition, olfaction, gustation and sensibility of the face are unimpaired. Tongue protrudes, slightly deviated to the right. Extremities : there exists a paresis of the whole right side of the body, face, tongue, arm and leg. Dynamometer test : March 2d, right 24, left 29 ; March 6th, right 27.2, left 32 ; March 8th, right 30, left 34 ; March 15th, right 26, left 30 ; March 31st, right 31, left 35 ; April 10th, right 32, left 42. No disturbance of the general sensibility. Tendon reflexes are present, not exaggerated and without any perceptible difference between the two sides.

On March 3d, while on a couch, she complained of the right hand becoming numb and found she had no power over it ; hand was cold and finger nails were blue. On attempting to eat some bread and milk shortly afterwards, found she could not swallow ; it would choke and strangle her. On attempting to place her in bed, the right leg was also paretic and for some minutes she lost all power of speech, but was conscious and heard what the nurse was telling her. The whole attack lasted no longer than five minutes. Says the hand and leg felt drawn down forcibly.

March 4th she had a similar attack of paresis, affecting the right arm and leg, lasting only a minute. During the day and night the right arm and leg would contract forcibly, the arm flexed at elbow and wrist joints and adducted at shoulder ; the knee joint would be flexed and leg

flexed on thigh. Her husband states that these spells occurred very often during the night and on two occasions awakened her.

March 8th—She is thoroughly salivated so that she can hardly speak. Saliva flows from her mouth. Is fed by enemata, and has been for four weeks.

March 25th—The pains are very much better; there is no longer nausea; appetite is good; bowels are regular. Examination of the fundus shows the papillitis receding. The salivation still continues.

March 31st—The headaches are growing less in severity and are confined to the right side of the head. Vision is improving and the photophobia has disappeared. Has not vomited since March 21st; appetite is good and bowels are regular.

She has been receiving one-half grain of morphia and one-sixth grain bichloride of mercury, hypodermatically, daily, since February 1st, along with tonics, enemata and a mouth wash.

She continued to improve daily, and on April 30th I ceased to see her daily, having asked her to come to my office once weekly for three months. The protiodides were continued during this time, but not with much regularity. She was in the best of health, rode a bicycle and thoroughly enjoyed herself.

On September 1, 1896, not having seen her for three weeks, was called to see her and found the old trouble lighted up again. Headaches, nausea, vomiting, mental dulness, prostration and papillitis were again present. I determined to salivate her as speedily as possible, and injected fifteen minims of a solution of bichloride of mercury, one-third grain to ten minims, night and morning, along with inunctions of the yellow oxide ointment to the elbow and knee joints.

On September 10th salivation appeared and improvement began, which has continued until she is in fairly good health. As soon as the cerebral symptoms disappeared and her usual good health was expected to return, she began to complain of weakness of the hands and arms, tiredness in walking, and of pains in the elbow and knee joints. These persisted in spite of all manner of treatment. Examining the joints there was found no tenderness in the joints themselves, no pain on rubbing the joint surfaces together, no swelling, redness or increased temperature.

Assuming, therefore, that the pain was not articular or rheumatic, it occurred to me that a neuritic process might be present, due to the mercury, since the joints implicated were the ones which received the inunctions.

This proved to be the case, inasmuch as there existed great tenderness over the nerve points in the upper and lower extremities, marked weakness of the hands and a slight degree of leg drop. She complained of giving way of the hands, would let dishes fall to the floor, had difficulty in buttoning her clothes, and would stumble and trip while

walking. The tendon reflexes were markedly diminished, the patellar reflexes hardly responding to the stimulus. Sensation was little if any affected. Trophic disturbances were also wanting. Electrical examination of the arm muscles showed quantitative changes only, the peroneal muscles acting in a similar manner.

The treatment directed towards the neuritis consisted of withdrawal of the mercurials, rest, galvanism, the administration of tonics and the iodides. Under this treatment the painful spots began to disappear and the muscle power slowly returned.

Analysis of this case shows it to be a specific meningo-encephalitis, affecting the frontal and parietal lobes of the left side, followed by a toxic neuritis. That it was not a gummatous tumor may be explained by the large extent of territory which it covered, reaching from the longitudinal fissure to the inferior frontal convolution, and perhaps extending to the base of the brain partly. The paresis of the right leg, arm and face, with aphasia and paraphasia; the history of several attacks of Jacksonian epilepsy, limited to the right side; the absence of disturbances of the cranial nerves, all point to the left cortical region as the seat of the disease. That the pathological process had not interfered permanently with the functions of the cortex is proven by the absence of all symptoms denoting brain destruction and the return of those which were but temporarily affected; as such may be mentioned the aphasia, the hemiparesis and the optic neuritis. These symptoms as presented plainly showed some lesion to the brain cortex, affecting the superficial layers only, either through pressure or, as is most probable, by a superficial inflammatory process of a specific nature.

The amount of mercury administered is almost incredible. Hypodermatic injections into the buttocks of about $1\frac{1}{3}$ grains of the bichloride daily would be a toxic quantity even to the majority of syphilitics, but this amount injected daily for ten days shows to what extent mercury is tolerated by some of these cases. Along with these injections, during the first attack the hair was shaven closely over the left parietal region and inunctions of the yellow oxide ointment were made daily. During the second attack, these inunctions were made to the elbow and knee joints, inner surfaces, and here the toxic neuritis started.

Regarding the case as a desperate one on September 1, 1896, it was either heroic action or loss of the patient, and informing the husband of the results of mercurialisation, started with the injec-

tions as before mentioned. The iodides were not tolerated, even in very small doses, and their cessation was quickly determined upon. The ptyalism was not as severe and protracted during the second attack as the first and quickly subsided on withdrawal of the mercury and a mouth wash consisting mainly of tincture of myrrh.

Prognosis.—Cases of arteritis or endarteritis, with consequent embolus or thrombus formation, or disruption of the vessels, with destruction or compression of the brain tissues, are least liable to satisfactory treatment. While gummatous tumors, if small and located in the meninges, offer better advantages, larger syphilomata extending into the cortex, or affecting the base of the brain, cause destruction of neighboring brain tissue, and are to be reckoned in the same class, as regards results, with the sequelæ of endarteritis. In other words, complete, or even partial, recovery is extremely doubtful in all cases where the brain substance has been impinged upon, and the prognosis must be rendered with great caution. On the other hand, cases of meningitis, or meningo-encephalitis, offer much better results and a hopeful prognosis, dependent, of course, upon the thoroughness and audacity of the treatment.

371 DELAWARE AVENUE.

HERPES FACIALIS.¹

By A. A. YOUNG, M. D., Newark, N. Y.

IN CALLING your attention to herpes zoster, I shall confine what I have to say to that phase or subdivision of it known as herpes facialis. It matters not where the eruption may be located, so far as the eruption is concerned, for the excitant and the morbid conditions must be identical in each case.

One of the curious and constant features of the affection is for it to follow along the course of some nerve trunk, producing regional neuralgia, lasting for one or more days, previous to the appearance of the eruption over the affected part, and it is only with the appearance of the eruption that a diagnosis can be made. It is still debatable whether the disease is of microbic origin or not, but certainly the weight of evidence is in that direction. Just how bacteria enter the system, grow and multiply, producing pathological conditions which we call disease, is yet to be solved.

1. Read before the Central New York Medical Association, at its annual meeting, held at Rochester, October 20, 1896.

There are grave doubts of herpes being a dermal affection, though the anatomical lesions are largely found in the skin. It seems to be reasonably certain that the anatomical lesion is in some portion of the ganglionic nervous system and follows from such affected point along the course of a nerve which radiates either directly or indirectly from the affected ganglion.

The cell growths that form at the beginning and during the progress of this affection follow the course of certain blood-vessels and nerves dipping down to the subcutaneous areolar tissue, coming into contact with, and even encircling, the nerve tissue and causing in it changes in the neurilemma and the partial absorption, at least, of the white substance of Schwann, leaving the axis cylinder practically bare. With this condition, it is readily conjectured why neuralgia of most painful type exists, and why it exists prior to the eruption. Here we are led to ask, Is there not some method by which an early diagnosis can be made without waiting for the eruption? and when such diagnosis is made, cannot the disease be aborted? These questions are highly important, for the solution of them will aid us materially to avoid that which at times results disastrously under the most skilful treatment.

Leaving now the general discussion of herpes, the signs and symptoms of which all are doubtless more or less familiar, I pass to its localised form, or one of its subdivisions—namely, herpes facialis, or to still further localise herpes supraorbitalis.

Before proceeding farther, it is desirable at this point to turn our attention briefly to the anatomical relations of the nerve supply of the region about to be described. Beginning with the ophthalmic nerve, which practically arises in the casserian ganglion and is purely a sensory nerve, we reach the frontal nerve, which passes toward the eye, and at a point about midway between the apex and base of the orbit it divides again; one of its branches, the supra-orbital, passes forward and upward through the supraorbital foramen and extending over the vault of cranium to near the occiput: in its passage it subdivides with the principal branch following near the course of the sagittal suture and parallel with it. The muscular branches of this nerve supply the corrugator supercilli, occipito-frontalis and orbicularis palpebrarum. It should also be remembered that the ophthalmic nerve supplies the eyeball, the lachrymal gland and the mucous lining of the eye. On account of the intimate relation which this nerve sustains to some of the most delicate structures of the body, to prevent pathological changes in

them is most desirable, for a loss of function of a nerve means a corresponding loss of function of the parts which the nerve supplies.

The early diagnosis of zoster facialis is somewhat difficult to make, for in its early stages it may simulate brow ague, catarrh of the frontal sinus, iritis, and the like. The pain of herpes is constant and severe until the appearance of the eruption; the pain of brow ague is intermittent and corresponds to the chill, as observed in an uncomplicated case of ague, a disease, by the way, that is becoming rare. A differential diagnosis of inflammation of the frontal sinus can be made by the presence of a greater or less degree of nasal catarrh, but principally by the aid of the electric light applied near to or over the affected sinus; if inflammation exists with exudation the parts will appear more or less opaque, if not then translucent. Iritis may be differentiated by the varying character of the pain which passes more downward and along the sides of the nose, but principally by the appearance of the eye—namely, contracted pupil with more tolerance to light, the aqueous humor becomes yellow and serous, the iris losing its striated appearance, and the like.

In zoster the inflammatory condition of the eye begins rather with the mucons coat, which is supplied by the ophthalmic nerve and which is the part primarily involved by the disease under consideration. It has been observed that when the nasal nerve becomes involved in herpes the eye rarely escapes inflammatory action, but the inflammation affects the cornea rather than the iris; so the signs and symptoms of corneitis become most prominent, while those of iritis are partially obscured and become a secondary consideration.

I here present the history of a case that will give a clinical picture of the disease under consideration :

Miss S., a young lady about 18 years of age, called me on February 16, 1896. I found her in bed complaining of intense pain, beginning near the center of the orbit, extending slightly inward and upward and ending near the hair on the right side of the forehead. There was no swelling of the affected part, so far as could be discovered. Believing the case to be one of supraorbital neuralgia, induced by influenza, a corresponding treatment was ordered, but twenty-four hours later showed no signs of improvement; a slight puffiness of the skin over seat of pain now appeared with increased pain on pressure: there was a temperature of $100\frac{1}{2}^{\circ}$, with a pulse of 96: respiration not increased; no change in the line of treatment ordered. On my third visit the

appearance of the patient was decidedly changed, the pain still marked, but not as intense as at my previous visits ; the lids were swollen, there was marked conjunctivitis with chemosis ; anesthesia of the cornea marked, the pupil responded sluggishly to light and shade, together with a moderate degree of corneitis. Passing from the region of the supraorbital foramen, slightly inward and upward, following the supra-orbital nerve, was a well-marked eruption, which consisted of vesicles characteristic of herpes zoster as seen in other portions of the body. There could be no longer any doubt as to the character of the affection, although the location is rather an unusual one. The course of the vesicles followed along and above the path of the nasal nerve, hence we had some affection of the deeper structures of the eye: the external tunics were principally involved ; the iris was dilated and but slight iritis could be detected ; there was a rupture of three or four vesicles on the nose and forehead, which has left small scars. Knowing the seriousness of the affection, at least when the nasal branch of the nerve becomes involved, my efforts were chiefly directed toward lessening the severity and spread of the affection and confining it to the region of the supraorbital nerve and its branches, and in this I, or nature, was partially successful.

The internal treatment in this case consisted in the administration of acetanalid, hyoscyamia and morphia in varying quantities or proportion as her condition seemed to indicate. In the early stage fl. ext. jaborandi was given, the object of which was to stimulate the excretory organs to greater activity and, therefore, to eliminate some of the hypothetical bacilli, or some of the substances on which their life and growth depend, which is practically their destruction. The external treatment consisted in painting the affected portions with a combination of the tinctures of aconite and iodine—seven of the former and one of the latter—repeating several times daily, and after which cover the affected parts with “lintine,” which is, as we all know, only absorbent cotton pressed into sheets. After the first external application the affection ceased to progress. Whether this is due to treatment or not I am not able to say, for I realise “one swallow does not make a spring.” It may, however, indicate its approach. Her recovery was more rapid than I anticipated. She reported at my office in person about three weeks after the onset of the disease, eyelids still slightly swollen, but not painful, and of a brownish color ; ptosis was marked ; the vesicles had nearly all disappeared, except in her hair, near the vertex of her cranium ; the pupil was still dilated to about four times its normal size ; there was partial anesthesia of the conjunctiva and cornea, but not as marked as when

the affection was active. She was now given a preparation of iron, strychnine and gelsemium. She was requested to report to me in one week, but failed to do so for a considerable time.

In the picture herewith given the external condition of the eye is shown as it existed immediately after healing of vesicles and at the time of beginning of treatment for its pathological condition. The dotted lines indicate the course of the eruption; ptosis well marked; pupil dilated to four times the size of its fellow and not responsive to light and shade; conjunctiva congested and hyperæsthetic; general condition of patient otherwise good.

When seen again the swelling had disappeared, ptosis scarcely observable, slight cloudiness of cornea, pupil dilated to at least four times the size of its fellow and vision partially obstructed; otherwise the condition of the patient was that of perfect health. For the space of six weeks longer she remained under my care for the abnormal condition of the eye, the treatment of which consisted in placing over the cornea an ophthalmic disc of gelatin containing 1-1000 grain of eserine sulph. The pupil would readily respond to the action of the drug and even become smaller than the pupil of the unaffected eye; the pupil would, after a few hours, dilate again, but not to the extent it previously had been; it is now less than double the size of its fellow and vision fairly good.

The indications are that the limit toward recovery in this case is now reached and that the eye is ever to remain in its present condition, with dilated pupil and slight opacity of cornea, as a result of inflammatory action. It is impossible to say what the result would have been had a correct diagnosis been earlier made; but it is my belief, from observation, that the eye complications might have been avoided by early treatment along lines that were later followed in this particular case.

Of the external treatment of herpes by the combination of aconite and iodine, when applied early, most gratifying results have been obtained; they certainly control the pain and also limit the number and extent of the vesicles. The excretory organs also need attention; they need stimulation, and for this purpose preference is given to pilocarpin, pushed till the physiological effects are observed.

From past experience in the early stages of herpes it is inferred that the treatment herewith outlined will materially lessen its severity, if not practically abort it.

SOME PRACTICAL ASPECTS OF MODERN MEDICAL SCIENCE.¹

BY JOHN O. PALMER, M. D., Auburn, N. Y.

I HOPE you will not expect from my title a discussion of the deep scientific questions of the day. My aim is only to rest your minds for a few moments, from the scholarly efforts preceding me, by a consideration of some of the more homely aspects of our work. I shall take the liberty also of rambling to some extent over the fields adjacent to strictly professional limits, and possibly touch upon topics which some may consider non-medical, but which it appears to the writer fall within the province of our profession in its broad comprehensiveness.

In making a doctor, the first step is to make a man, for without the material found only in the gentleman or gentlewoman, the manufacture of a true physician is an impossibility, however well equipped the factory may be through which he or she is advanced. It is morally certain that the fundamental principles of true character will come to the surface and control the conduct in the social economy, as it is physically certain that our material frames will be resolved into their component parts, so fulfilling the inflexible laws of nature in both instances.

The dominion given to the final evolution of creative power, when at the close of the Creator's fiat week he said, "Let us make man in our image," enabled him to harness all the elements of force and draw rein over every law, until the myriad forms of invisible life stand out in full relief under the finely adjusted lenses of his microscope, and by his telescopic power, made him able to reduce the trackless spaces of an universe to such a degree as to make clear their physical contour and reveal even the geography of the heavenly bodies.

Let us consider this sublime revelation of wisdom in the complex workmanship manifested in our physical being, and which is given us especially as physicians for our study and care. It is unnecessary to go beyond the gross anatomy of our frame to become convinced of a supreme wisdom, but when we enter the department of histology, we stand in confusion before the Omniscient. And while the microscopy of the molecule and the cell baffle our magnified vision, what shall we do with the electrical force we call life, which guides and renews these constant mole-

1. Read at the annual meeting of the Medical Association of Central New York, at Rochester, October 20, 1896.

cular changes? But how slow has been the progress of the knowledge of our marvelous mechanism. When we remember that man lived for thousands of years without understanding the circulation of the blood and it was reserved for one almost of our own time to demonstrate this, as well as the functions of many of the vital organs, may we not be justly proud of our present acquirements? But hold: our brilliant results are being so rapidly transformed that almost ere they are applied, our neighbors, or perhaps we ourselves, have improved upon or so modified our work as to suggest wonderment in our own minds; and while the populace applaud results, the scientist laughs at the same as crude and unworthy, in view of the latter development; and we may well ask, What of the future?

It is generally expected of our profession, which in its research comes nearer than any other to the great first cause, that we not only exercise the healing and curative art; but that we guard our clients from the inroads of disease, and prevent the development in their systems of those germs of decay and death which are now known to swarm upon the mucous surfaces, and in the cutaneous pores, only waiting such conditions as conduce to their pathogenic action or that of their ptomaines; and today we are recognised as occupying that position of trust which rightfully belong to us, only when we intelligently comprehend and use the advantages we have in this realm of scientific investigation.

It is in the field of bacteriology and microscopy that our means of prevention is chiefly centered, and where we verify or correct what our gross finding has shown to be a probable diagnosis. The chemical and microscopical examination of the secretions and excretions, the bacteriological culture of the exudative products of toxic action, and the attendant serum therapy of the present time, all testify to the studious and untiring labor of many who have stood out conspicuously in these later years, and it is quite probable that the close of the nineteenth century will witness the ability on the part of the better equipped physician and surgeon to take from the list of incurable maladies many diseases which to have contracted in time past was to abandon all hope of else but more or less speedy death, and that often in its most repulsive and painful forms.

It appears to the writer that at no very distant day we may shelve in our laboratories each and every coccus and bacillus productive of the long train of toxic disturbances of the human system, labeled with its respective antitoxin, as we now have displayed

in our museums monstrosities and malignant tumors which have brought death to so many victims. Writing from a surgical point of view, it seems that the appointments of the modern operating room are the embodiment of aseptic and antiseptic perfection, but I venture the suggestion that these, with the complete technique of a McBurney or a Weyth, may be thought clumsy when compared with what the student of surgery of the twentieth century will be taught. May we not reasonably predict, that should another war blight our fair country the equivalent of so many limbs sacrificed in the late rebellion would be saved to the comfort and use of thousands who might sustain wounds similar to those received in that great struggle ; and this, not because we understand anatomy better, but because we have dived down into an under-current of science and brought up treasures of wisdom that enable us to neutralise so many of the germs of infection, fermentation and putrefaction ? Limbs that were formerly amputated, because there was no time to properly dress them, will be saved, because, forsooth, it would waste valuable time to amputate. Such will be the perfection of army surgery in the next war.

And as we admire the present status of practical medicine, and congratulate ourselves on our diagnostic appliances and the ease with which we meet the indication with tablet triturate of the ultimate alkaloid, the use of lavage, enteroelysis, massage and electrolysis, we may have to relegate these boasted achievements into innocuous desuetude, and go about our exhibition of the remedial measures of the coming decades, with wonder that we so long drank from the gourd of empiricism, when the golden goblet of a purer science was so nearly within our reach. But have we not lost some ground in so generally dropping some valuable means of relief ? It is the judgment of many advanced teachers, that some of the old-time and wellnigh abandoned means of therapy should again be brought into more general use, viz.: venesection, vesication and the seton.

In the field of obstetrics, where those of us who were at work a third of a century ago, went to our task unwittingly the bearers of germs of infection, we now save our parturient patient from all such danger, and where sapremia and septicemia with their suffering, and death followed in a substantial percentage, we now almost never encounter these conditions and can feel the greatest assurance that when we can control the technique of accouchment and the puerperium, the occurrence of fever to any serious degree,

has no passport into the lying-in chamber. And more than this, when our fair patient places herself in the care of the scientific obstetrician during the parturient, he may, by intelligent antepartum investigation, so predict the on-coming climax of gestation, as to assure her, as well as himself, that all the physical conditions of the system at large, as well as the functional work of the excretory organs, are favorable or otherwise, and if otherwise, prepare for whatever condition is found to exist, so greatly reducing the risk of mortality to both mother and child.

It is well here to remind ourselves that we are this year celebrating the centenary of the discovery of vaccination, and we are now only four days past the semicentenary of the discovery of anesthesia. Dr. Morton, who though the first to practically apply anesthesia, may have to divide the honor of its first conception with Dr. Colton, who about the same time demonstrated the efficiency of nitrous oxide and Dr. Simpson that of chloroform. Dr. Morton's application of ether was, however, earlier and has become far more general in its use. There should be a more fitting commemoration of this than has been made, and all nations should express as well as feel the sentiment of laudation and gratitude. "Without exaggeration it may be said that no more beneficent discovery has ever been made in the healing art, and not more than two or three comparable with it."

Far back in the history of our profession, a crude application of electricity was made in the work of some, but the immediate past is the only epoch in which any considerable results have been realised. I trust you will all join with me in giving honor also to one now living, a son of the illustrious discoverer, whose praises we have just sung. I refer to Dr. W. J. Morton, now in the faculty of the Post-Graduate Medical School and Hospital of New York City, whose department is that of electro-therapy.

The private office or public dispensary which does not contain more or less of electrical equipment is incomplete and at a disadvantage in the progress of modern medical science. But the specialist, not only in neurology and neurasthenia, but as well in laryngology, rhinology, dermatology and gynecology, is unarmed if his armamentarium lacks a static, a cantery, a primary and secondary faradic and galvanic current, regulated and measured by the most improved rheostat and milliamperemeter, and the subject of this paragraph has perhaps done more than any one else to bring on this helpful progress.

I could not justly close this résumé of the advances of our beloved science without reference to the trained nurse and all that that important personage means to hospital and private practice.

From a Florence Nightingale, with her unselfish devotion to the suffering soldier of the Crimean war, down through later years to the scholarly and accomplished graduate of our own cherished schools, we may see a development of scientific advancement along a line infinitely helpful to the work of the modern physician and surgeon. There is also a gradual and acceptable entrance into our ranks of well-trained women who are serving a most wise and useful field in our profession. They are among the most loyal of the disciples of Esculapius, and almost without exception worthy and competent.

Again, the development of the hospital has made conspicuous many life-saving environments of the sick and helpless. The application of sunlight and free ventilation, as well as the more correct idea of rest and exercise, have kept pace with advanced practice of cleanliness, as related to patient and surroundings, as well as to the doctor himself. This development of sanitation and hygiene, together with anesthesia and asepsis, has made it possible to accomplish desired results with a moiety of the drugs formerly used, as well as far less frequent use of cutting and saw. Still there is much room for improvement. The application of scientific principles should be made more directly to the work of our boards of health and sanitary commissions, which cannot be done until they are constituted, at least in the majority, of men not only of recognised judgment and influence, but who have been educated along the lines of scientific medicine. We all rejoice that so wise and fair a code has been framed and made a law, regarding the practice of the professions of medicine, pharmacy and dentistry, and we may well encourage a similar course of legislation regarding those placed in authority in the province of hygiene and health. There is also urgent need of more stringent laws governing the work of midwives, to whom, in our cities, is chargeable the loss of much life, as well as many cases of invalidism in the mother and hopeless blindness in the offspring.

There are some untoward tendencies also arising from a lack of appreciation of the scope of our duties and privileges. In the matter of the entrance of women into so many of the avocations in which only men formerly found fields of action, there is more room

for fear than hope for her sex. In looking for the highest types of physical, moral and intellectual perfection of women, that which comes of health and body, heart and mind, where do we rest our search? Not at the workshop door, as we watch the procession of overworked and underpaid girls taking up their nightly march toward their scantily furnished, cheerless apartments; not in the corridor of the modern office, where we are permitted to pause and look upon the drudgery of young women toiling long hours over the hieroglyphics which they form, and then translate into written correspondence and records under a nervous strain, of which we have little conception; nor in the so-called women's rights club. No. As our minds revert to conspicuous examples of such, we are met with disappointment. There is, however, a field where the perfection of beauty is attained, where a well-balanced training in girlhood, begetting a standard of health in young womanhood, realises a happiness in mature life when transplanted from the protection of the home of the wise parent to the ultimate freedom of the love bondage, husband and wife live over again the joy and peace which is a foretaste of Paradise. Here we may rest our search, having discovered the fountain of youthful beauty, broadening as age advances into that placid river of beautified character, reflected so beautifully from the face of motherhood in the family home, entering which, she charms and sanctifies, and at the end, leaving which, she is crowned with the sublimity of peace, as she bestows the hand of blessing upon children and grandchildren, who are to take up the harmonious refrain she has so joyously sung these many years. This is no fanciful picture. It would be the rule rather than the exception, were the unwritten laws governing this matter of home-making more regarded and better obeyed. And to whom more than the trusted physician should the people look for counsel and instruction in this. If we are the almoners of these laws, let us look for some of the factors militating against their being understood and applied.

Can we not find it in the morbid and unnatural desire of our young ladies to be independent? They take positions which require but little special training at a lower rate of pay than is just, thereby creating a competition which the brother or father is unable to meet and give support to his dependents, and to supplement his lessened salary, the girls have to train themselves to take higher positions, where they may, by still more increasing the unhealthy competition, temporarily aid in the home support. So,

cause becoming the effect and effect cause, the drift is downward, home is deranged, the natural beauty born to the girl is faded and the woman comes forth lacking in the charms she is herself so much responsible for having lost. But the fault is not all on this side. Our fathers in the struggle laid upon them in founding and sustaining a home or amassing a fortune, grasp every opportunity to get the work of the factory or counting-room done by those who will do the same work for less pay, and so the wrong grows worse, fostered by ambition on the one hand and covetousness on the other.

There are, however, I believe an increasing number of noble women who stand at the home altar, and in God's appointed way administer the sacred rights of her sex, receiving the loyal protection and support of loving and trusting husband and son, and one of the most binding duties of a profession, admitted nearer to the very heart of the home than the holy ministry itself, is to nurture this highest of all beauty, the beauty born of a true and pure domestic life.

I would not be understood as condemning the effort of self-support on the part of young women so placed in the providence of God as to make necessary their devotion to wage earning. There are in the circle of our acquaintance such exceptions, and we should encourage and sustain them in their work.

Another fruitful cause of many miscarriages in the economy of home, is the waywardness of so many of our young men. A false estimate of what constitute an ability to maintain a home discourages their hopes, and their should-be savings are spent on companions, who too often encourage and even expect such costly attentions. These young men in a considerable proportion drift downward to the base and immoral substitute for marriage and home and bring to shame and ill-fame recruits for the habitations of sin. This moralising may seem irrelevant to my title, but I am persuaded that such matters fall justly within "modern medical science in its most practical aspects."

We used to wonder, as boys, why in college nomenclature the end of our curriculum was called "commencement," but on reaching this seeming end of student days we found ourselves only just ready to commence the real work of investigation and research, and instead of maturing the ripe fruits of wisdom then, we had only set our scions into the stock of the tree of knowledge and begun to feel the potency of the oncoming and life-giving stream

which would make possible our enlargement into men and women who should step forward into the station meant for us when the Almighty proclaimed that the last work of His creation was very good.

18 WILLIAM STREET.

THE FRATERNAL RELATIONS OF PHYSICIANS.¹

By J. R. STURTEVANT, M. D., Theresa, N. Y.

IN this age of fraternal organisation the world is overrun with societies created from real or imaginary necessity, most of which have, at least ostensibly, the mutual welfare and happiness of its members. Some of them are bound together by iron-clad obligations, and most of them are required to promise, with more or less emphasis, in the way of theoretical penalty, to stand by each other in trouble and to defend each other when wrongfully persecuted and to relieve one another in distress. The personnel of many of these organisations is made up of individuals from all the walks and occupations in life. The Masons, Odd-Fellows, Knights of Pythias, and the like, are men of both humble and prominent station. They are men or women in various occupations, and yet they are bound together in one common band or brotherhood for the general good of the order to which they belong and the particular good of the individual member. Others are composed of people in certain occupations and confined to such; others to certain general classes, such as mechanics, manufacturers, and the like, all of whom are supposed, by their regulations, to contribute, to the best of their abilities, to the general good of their respective organisations. Most of these are secret societies, and their doings are shrouded in more or less mystery; and there is not one such organisation but to which a large part of the world is perfectly indifferent, because they are organised in the interest of a certain class or a certain chosen few.

The world looks to none of them in the moments of greatest physical peril. Secret society relations rarely count when the life-blood is ebbing away, or when disease has fastened its grip upon the victim. It is to another class that the whole world rushes madly headlong for succor and relief from the perils that do not have commercial value. We who are gathered here today belong to this class. Our calling is the noblest, most far-reaching in its

1. Read before the Medical Society of Jefferson County, N. Y., January 12, 1897.

benefits, the most in demand of any occupation upon the earth. Those especially of us who have, for a goodly number of years, borne the trials, the anxieties, the privations of many kinds, that we might relieve human suffering, bring joy to the anxious household whose loved ones have tottered on the verge of eternity and are being nursed back to life, appreciate, to some degree at least, the true friendship, self-sacrificing love and devotion of those of our fellows who have shared our responsibilities and professional anxieties, and who have even deserted all personal and private interests and hastened to the rescue and relief of our own loved ones, sparing themselves no fatigue, privation or expense, forgetting self entirely in their eagerness to bring happiness and health to us and ours.

Who of us who have had loved ones' lives imperiled by disease or injury to that extent that our personal and filial anxieties disable our judgment, have not felt that thrill of gratitude to, and love for, that medical friend who, as our loved family physician, hastens to us, shifts the burden of responsibility onto his own broad and willing shoulders, and taking the helm, guides our craft past the dangerous shoals and into the quiet haven of recovery?

While among the laity we find many noble and appreciative examples of manhood and womanhood who are mindful of the feelings of their medical adviser and are duly appreciative of his efforts to relieve their ills, you and I know too well that these are in the minority, and of them it may be said that

“ God and the doctor they alike adore,
But only when in trouble, not before ;
The danger o'er, both are alike requited—
God is forgotten and the doctor slighted.”

There is a large class who hold the doctor to be a common target for criticism and curses in return for his best endeavors to do them good and make them happy. This we have learned to expect, and the “older ducks have oiled their feathers” accordingly. But there is another persecution to which we are too often subjected—namely, at the hands, or rather at the tongues, of members of our own profession. We cannot deny that, like churches and societies, we have members unworthy the name ; but I do claim that we too often forget that life is too short to spend in criticising and endeavoring to build ourselves a habitation by trying to pull down that of our colaborers. What is still more deplorable and lamentable is the

spectacle of a medical man lending his aid to the injury of a member of his own profession, who, struggling hard to attain well-earned success, has, perhaps, through the avarice of some unprincipled layman, been dragged into court upon the pretense of having inflicted injury to one whom he has struggled hard to restore to health and physical prosperity. How sad, and yet how disgusting, to see members of our profession, for a mere pecuniary temptation, ascend the witness stand, after hours of consultation with counsel, and endeavor to so distort the true theory of a case as to bring calumny and financial ruin upon one whose professional reputation and attainments the witness knows to be beyond reproach. With what gusto we sometimes see such witness preface his testimony with a recounting of his own reputation, the honors which may, either deservedly or undeservedly, have been heaped upon him; others, perhaps younger, recounting their own supposed skill and referring to a reputation which they have yet to earn, display their skill in building up hypotheses at the possible expense of a brother far more worthy and skilful than themselves. And all this, not even because they may have some personal debt of revenge to pay, which is said to be merely human, but for the paltry sum of an expert witness fee. To obtain that, they are willing that the professional life-blood of a worthy brother physician should freely flow, they themselves possibly being the assassins instead of the one who primarily seeks the prosecution.

Thank God! better times are coming—aye, they are at hand; and I am proud of the physicians of Jefferson county, who almost to a man rise above this nefarious sort of business, and I am proud, too, of those noble specimens of the profession from other counties who are ever ready to sacrifice their immediate private gain that truth and justice may prevail. I am proud of the spirit which animated a medical friend, who, when asked to loan his books to the prosecution in a certain case, promptly referred the limb of the law to a certain tropical clime, the only place where literature worthy of such a cause could be found.

I do not advocate the defense of crime or criminal ignorance, but I do denounce, in unmeasured terms, the act of that physician who will ascend the witness stand for the prosecution of a physician simply because he is hired to do so, of which we have had several examples in the not far distant past. If poverty is his excuse, let him remember that there is a poverty more serious than that of the purse—a poverty of manhood, of honor, of truth and

justice, as applied to the efforts of his own hard-worked and industrious contemporaries, is usually associated with a poverty of good common sense. A recapitulation of the number of societies and associations in which one may have held membership or office will not count in the day of judgment when a man's fellow-laborers size him up and stamp upon his name its real value. Clay models, never so skilfully formed, will not take the place of that other gray matter, never so fearfully wanting, and which is so essential to the building up of a desirable reputation. Our legal friends are not supposed to be especially interested in the preservation of harmony in other professions than their own, and the tempting morsels of flattery by which they would beguile the unwary doctor into the witness box should be shunned and the noble example of Him who, upon the mountain top, taught how to avoid temptation, should be imitated, and our Blackstonian friends directed to greener pastures. The petty and puerile jealousies which are too prevalent in our own ranks are unworthy of a place in the program of our busy lives, and should never be a factor in determining our course when stern duty calls upon us to stand for the right. This short life is too brief to be thus wasted. The noblest examples in our profession are those who love their chosen calling for the good which it is possible for them to accomplish, who are never heard to speak ill of another member of it, who scorn to be made tools of to be used against worthy and skilful colaborers, and whose hearts throb in true sympathy for those who, like themselves, are giving the best there is in their lives for suffering mankind.

It may be safely stated that, invariably, time hangs heavily upon the hands of him who poses as a chronic expert witness against those of his own profession; and he can advertise that melancholy fact in no more certain manner. A charitable institution for the care and sustenance of this class of unfortunates, although perhaps unique, might remove them from temptation and care for them, not only when in a senile condition, but in that other condition of earlier professional career where nature has failed to supply those noble traits of character so essentially necessary in the deservedly successful physician and surgeon.

It has been suggested that an effort be made to introduce into the statutes of our own state, the New Hampshire law, which provides that when a physician or surgeon is sued for malpractice, the plaintiff must first give bonds in the sum of one-fourth the amount of the damages claimed, to be paid to the defendant in case of a

verdict for the latter. This provision would no doubt discourage many blackmailers, but, with or without such legislation, we need a more keen sense of professional honor among certain medical men.

The would-be expert witness against his fellow, crams for hours or days it may be, that he may do that brother a wrong, and pocket a few ill-gotten dollars. He may better spend that precious time in cramming for the general good and for the replenishing of his own limited store of professional attainments.

The world expects and demands miraculous results at the hands of the physician. It is willing to grant him nothing, and seeks to punish him for failing to accomplish the impossible. The legal fraternity, whose professional errors and careless oversights go unpunished, and are usually committed at the expense of their clients, are not slow to avail themselves of the aid of brother against brother. Who, then, will be for us if these are against us? There are no holier or more sacred ties outside the family circle than those which should bind us together as physicians. No one else can give us that sympathy which we so much need during the fearful ordeals of responsibility which are constantly in our pathways, and why should we do otherwise than lend that sympathy and love which inspires more than all else to nobler aspirations and more effectual work for the sick and injured.

ETIOLOGY AND PATHOLOGY OF UTERINE DISPLACEMENTS.¹

By M. A. CROCKETT, M. D.,

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AS AN introduction to the discussion of this subject, it is proper, briefly, to review the anatomical relations of the uterus as constituting its mechanism of support. The apex of this organ is inserted into the pelvic floor. The anterior vaginal wall and utero-sacral ligaments form an elastic beam stretching across the pelvis and permitting a certain degree of up-and-down movement to the cervix. The posterior vaginal wall is in contact with the anterior, hence excessive descent of the elastic beam is met by the perineum. Experiments show that as long as this beam is not subjected to abnormal weight or strain, it can support the uterus unaided.

1. Read before the Buffalo Academy of Medicine, December 22, 1896.

The utero-sacral are the only uterine ligaments which remain constantly taut, thus insuring the pulling back of the cervix and the tipping forward of the fundus ; in this position the posterior wall of the uterus receives a downward thrust from intra-abdominal pressure.

Both the broad and round ligaments are quite slack, but the contents of the pelvis bear down upon these structures so that continuous traction is exerted by them. As the uterus moves backward or sideways the tension of these ligaments becomes progressively greater until it balances the displacing force.

There has been much discussion concerning the normal position of the uterus, but, as we can readily see, there are a great many normal positions, each of which represents an adjustment to the forces active at that particular time. The posture of the woman, the degree of bladder distension and the amount of bowel contents produce incessant variation of intra-pelvic pressure requiring constant change in the uterine position. Operations which permanently fix the uterus in any one position are faulty from a physiological standpoint ; they prevent, or hinder, that delicate adjustment to varying relations which is the prominent characteristic of a normal uterus.

The axis of the superior strait passes through the center of what may be designated the physiological area of uterine movement. That is, if we swing the fundus around the pelvis in the largest circle permitted by the uterine attachments, that circle will represent the base of a cone whose apex is the cervix fastened to the pelvic floor ; the axis of this cone will coincide with that of the pelvic inlet. During labor we know how important it is for the uterine forces to act in the right direction ; nature, while permitting a certain degree of movement, has arranged for the fundus to be at the right place in the right time.

From a pathological point of view, a uterus is displaced whenever it permanently takes up a position outside of the limits of this physiological area ; for in such positions the normal intra-pelvic force, instead of replacing, still further displaces the organ. This is particularly the case when the fundus has passed backward beyond the line of the perpendicular, so that all downward pressure falls upon the anterior uterine wall, both preventing its forward return and gradually overcoming the tension of the round ligaments.

Some writers require the presence of symptoms before classing

a displacement as pathological, but the development of symptoms will depend upon the powers of resistance in the organism ; their presence or absence, while affecting the question of treatment, has nothing to do with that of classification. Retroversions, as well as refractive errors and cardiac disease, have been discovered by accident ; they represent conditions which, sooner or later, will produce symptoms ; their treatment comes under the head of preventive medicine.

For normal working of the mechanism of uterine support two requirements must be fulfilled : these are normal tissues and normal forces. Thus, the causes of uterine displacements may be divided under two heads : the first includes all those conditions which impair the integrity or tonicity of the supporting structures ; the second, all abnormalities in the amount or direction of the forces acting upon the uterus. Of course, the most serious displacements are those brought about by causes which act under both these heads.

It is of vital importance for the specialist to bear in mind those conditions which produce deficient tone in the supporting structures, for many of these conditions are general and not local. The best gynecologist is the one who knows when to leave the pelvic organs alone and turn his attention to the body at large. The faults of dress, diet and education, every disease or hygienic error which results in lowered vitality, may play a part in producing such a degree of structural weakness that the uterus is unable to stand up under the stress of daily life. From some of these general causes, or from lack of development, that flabby condition of the uterine walls may result which permits the various flexions to occur. In treating such cases, the nervous, nutritive and circulatory apparatus must receive special attention.

Subinvolution following abortion or labor gives rise to conditions falling under both the divisions mentioned above ; the congestion of the pelvis lowers the tone of the pelvic floor and, at the same time, gives a heavier uterus to support. As a consequence, the elastic supporting beam sags and comes down upon the perineum for a resting-place. If the strength of this body is impaired by rupture, or otherwise, a still further descent of the uterus occurs. In the mechanism of labor, whatever comes down first goes to the front ; as the uterus gets lower, the cervix, like the occiput, turns forward and a retroversion is produced. This position brings the uterine axis into the line of the inferior strait, so

that the womb may easily be forced down hill into the outer world. In treating such cases it is important to bear in mind that the descent is the primary factor ; retroversion is a result, not a cause.

There is another class of cases which depends, primarily, upon relaxation of the uterine walls and ligaments. Some sudden shock throws the fundus backward and, if the utero-sacral ligaments hold, a flexion is produced. Very often the retractores stretch, the cervix comes forward and we have a version combined with an amount of descent in proportion to the degree of relaxation in the utero-sacral ligaments. If the perineum is strong, descent is prevented, and we have to deal only with a retroversion.

Under the head of abnormal forces we may class those cases in which the uterus is subjected to heavy pressure—as instances we may mention, the increase in intra-abdominal pressure from heavy lifting, straining from constipation, growing tumors, waist constriction, and the like. The uterine supports are adjusted for certain weights ; when overloading occurs they soon lose their tonicity and introduce another pathological element into the case.

It is needless to give a detailed account of all the causes which bring about uterine displacements ; by bearing in mind the general classification the mechanism is easily understood. The strength of the uterine ligaments depends chiefly upon the presence of muscular fibers prolonged from the wall of the uterus. This being so, it follows that metritis not only impairs the tonicity of the womb itself, but also that of its supports. The majority of misplaced uteri are subjected to disturbances of circulation leading to venous engorgement. Such congestion aggravates an old metritis or produces the condition favorable for its development, and, in time, such atrophy of the ligaments may occur as to render them useless for future support ; such a condition, when present, has an important bearing in the selection of operative measures.

The symptoms of a displacement may be those of a metritis alone, but usually something more is added. There is a demand for the expenditure of nervous energy in every effort made by the body tissues to perform their functions : a displacement produces an element of increased resistance, and the nervous system, sooner or later, fails to meet the demand and various disturbances arise. There is nothing more difficult than to decide what part is played by a displaced uterus in producing symptoms referred to distant parts of the body. It is best to make very guarded promises as to results of treatment ; act upon the general principle of setting

right whatever is manifestly wrong. To see a headache disappear merely by replacing a retroverted uterus has, on several occasions, been a source of great surprise to the writer; more frequently has he seen no benefit whatever from such treatment. There seems to be no way to know beforehand which one of several pathological conditions is responsible for the symptoms; the only safe rule is to treat them all.

The prolapsing of ovaries, pressure upon the rectum and pelvic nerves are conditions so easy to understand that comment is unnecessary.

There is a class of physicians who greatly over-estimate the effects of displacements, but there are also those who overlook the pelvis entirely. The best rule is to avoid both these extremes and rest upon the middle-ground of common sense.

FIVE CASES OF EXTRA-GENITAL CHANCRE.

By ALFRED E. DIEHL, M. D., Buffalo, N. Y.,

Lecturer on dermatology, Niagara Medical College; visiting dermatologist to the Erie County Hospital; dermatologist to the German Deaconess's Home, etc.

THE relatively great frequency of extra-genital chancres, occurring, as they do, so frequently on persons who are entirely innocent, leads me to report the appended cases and to say a few words concerning their diagnosis. First, as to their relative frequency: According to statistics collected by Julien, out of 1,977 chancres, 126, or over 6 per cent., were extra-genital; of these 126 cases, 73 were of the mouth, the frequency of the situation in the mouth being in the order of the lips first, then the tongue, gums and tonsils. According to statistics collected by Poray-Koschitz out of 852 extra-genital chancres 632 were cephalic. Of all these cephalic sores, I have reason to believe that a very large percentage occur on persons who are innocent; for example, many sores of the lips result from kissing and from contact with unclean drinking and eating utensils; those on the gums are generally due to unclean instruments employed by dentists.

Again, extra-genital chancres are much more frequently seen in some countries than in others; for example, Ricord put the proportion between extra-genital and genital sores as 1 to 3, the great majority of extra-genital sores being on women. In Vienna, while the proportion is not so great as in Paris, yet the ratio is very large. The same holds true in Russia. Bellonow states that of

all the cases he has seen, numbering nearly 3,000, only 25 per cent. were acquired during coitus. The reason that I quote these statistics is that many people come to the physician for treatment for some tertiary manifestation who have never had a primary genital sore and who deny any infection, thus showing that probably some extra-genital had been overlooked or mistaken for some other lesion; the following secondary eruption had also passed unnoticed, as secondary signs in this country are often very mild and transient in form.

During the past year seven cases of extra-genital sores have come under my observation, of which number six persons were entirely innocent. Of the seven cases, two were on the finger, one on the eyelid, two of the tonsil, one on the abdomen and one on the instep. Two of the seven cases I will omit. The first case is as follows :

CASE I.—M. D., female, aged 17 years, came to me with general eruption, which proved to be a large papular syphilide. Examination of the genital region showed numerous condylomata lata, but no sign of an initial sore; but on examining the mouth and throat, the left tonsil was seen to be much swollen and ulcerated. It appeared to be about the size of a small walnut, and was of a bluish-red color; its surface was covered by a rather firmly adherent deposit of a grayish color. The tonsil itself was very much indurated, but caused very little pain. There was a general glandular enlargement, but the glands on the left side of the neck were considerably larger than those on the right.

CASE II.—C. H., male, aged 21, came to me complaining of a general eruption and sore throat. Examination revealed a macular eruption on the body. There was no sign of a genital sore. In the mouth the appearance was almost identical with that of Case I. The left tonsil was also affected in this case, but was not so large and was more deeply ulcerated, having a ragged edge and covered by a firmly adherent grayish-white deposit.

CASE III.—J. B., male, aged 7 years, whose father had died about two years ago, and the mother had married a second time and acquired a sore, which was followed by a macular eruption. I cautioned the mother to be very careful with her children and not to allow them to sleep in the same bed with the parents, nor eat with the same utensils. All went well for some time, when finally the mother brought in the boy, with a small sore on the right instep which refused to heal. The sore was about the size of a ten cent piece, superficially excoriated and very slightly indurated. There was some glandular enlargement in the

popliteal space, but at the time there was no general glandular enlargement. In the course of a few weeks there appeared a macular eruption on the body. On inquiry as to how the boy became infected, it was found that the woman's husband, who had numerous condylomata lata in the gluteal fold, had been accustomed to place cloths there to keep the parts from contact with each other, and had left the cloths about the house promiscuously. The boy had picked up some of these cloths and had evidently got some of the virus on his hands, and, on going to bed, had most probably scratched his foot with the infecting finger and thus produced the lesion. I can account for the sore in no other way, as the boy had always slept alone and had never been allowed to go near the woman's husband.

CASE IV.—Male, aged 35 ; was bitten on the index finger. A small abrasion resulted—which refused to heal under ordinary treatment. In the course of a week or ten days the sore began to spread and to take on the peculiar induration. The nail became disfigured and finally came away. The tip of the finger was irregularly swollen, presented a raw, glazed ulceration about half an inch in diameter and was of a peculiar bluish tint. The induration was quite marked.

CASE V.—J. C., male, aged 30 ; had been going with an infected woman ; came to me with a sore on his abdomen. The sore was about the size of a penny, rather deeply ulcerated and presented no appreciable induration. There was the usual glandular involvement and a macular eruption just beginning to make its appearance. On inquiring as to how the sore happened to be in such a position, he said that while with the woman he had scratched a pimple on his abdomen, thus easily accounting for the presence of the sore.

Of all the seven cases mentioned, this last one was the only one in which the sore was not acquired innocently. The other six cases I have reason to believe were all innocent and purely accidental.

In the diagnosis of extra-genital chancres those of the tonsil present the greatest difficulty. In this situation it must be differentiated from several other affections, notably diphtheria, gumma, abscess, tuberculosis and epithelioma. In cases where it is possible to have an examination made by a skilled bacteriologist, the diagnosis of diphtheria from chancre is, of course, very easy and simple, but in some cases where bacteriological examination cannot be made, the differential diagnosis is often very difficult, especially in the prodromal period of the secondary eruption, in which the local appearances and general symptoms present much similarity. In both affections there are fever, general malaise, nausea or anorexia, pain on swallowing and glandular enlargement ; locally

there are present the redness and enlargement of the tonsil and an adherent yellowish deposit. The differential points are first in the coloration. In case of chancre the color is a peculiar bluish red, which is not present in diphtheria; next there is the marked induration, which is also not found in diphtheria. As regards the membrane in diphtheria, it is generally found stretching over the fauces and soft palate, while in chancres it does not spread, but remains fixed at the seat of invasion, although cases have been recorded in which the deposit has spread. *e. g.* I will give a case reported by Flatau, of Germany, which is as follows: The tonsil was enlarged, dark-bluish red in color; on the surface was an ulceration, which was covered by a yellowish membrane, in the middle of which were brown-black deposits. During two weeks, in spite of absence of fever and only slight pain, the condition was called diphtheria. In the course of a few days there was a similar swelling on the other tonsil, presenting also a similar membrane. The diagnosis was made only on the appearance of the secondary eruption; another point of diagnosis is the enlargement of the cubital glands, which, by this time, have become involved in case of syphilis.

The diagnosis from gumma is made by the history of a previous sore—if possible to get such a history—although a large proportion of cases will deny ever having had a sore; by the appearance of the ulceration, which presents usually a small crateriform opening, with undermined edges, the absence of the marked induration and the presence of severe pain on swallowing, and by the situation. Gummata, as a rule, make their appearance on the anterior or posterior pillars, while chancre involves the tonsil itself.

The diagnosis from abscess is usually comparatively simple. Abscess begins acutely with severe pain, and the resulting enlargement is usually soft and fluctuating and soon shows signs of pointing. Sometimes, however, the diagnosis is more difficult, for cases will occur in which the peritonsillar tissue becomes inflamed, swollen and edematous; in such cases the sore will appear to be rather deeply ulcerated and with a raised edematous surface surrounding it.

Primary tuberculosis of the tonsil is rare; the ulceration is superficial and covered with flabby granulations; the edges are characteristic, having the peculiar eaten-out, ragged appearance, and surrounding the ulcerated surface are seen, grouped or isolated, miliary tubercles; there is also severe pain on swallowing, and

further examination will usually show signs of pulmonary disease. Epithelioma of the tonsil is also rare, and when found presents a rather deep ulceration, with raised edges, and is much indurated. There is no general glandular enlargement ; the patient complains of lancinating pains and difficulty in swallowing. Microscopic examination in cases of epithelioma will prove the diagnosis.

In all cases of extra-genital chancre the points enumerated can only make one suspect the nature of the condition, and the positive diagnosis can only be made on the appearance of the secondary manifestations.

362 PEARL STREET.

Society Proceedings.

MEDICAL SOCIETY OF THE COUNTY OF ERIE.

REPORTED BY FRANKLIN C. GRAM, M. D., Secretary.

IN MEMORY OF DR. ALPHONSE DAGENAIS.

A SPECIAL meeting of the Medical Society of the County of Erie was held in the rooms of the Buffalo Academy of Medicine, 619 Main street, on the evening of March 5, 1897.

In the absence of the president and vice-president the secretary called the meeting to order, and Dr. Lucien Howe was elected temporary chairman.

Dr. Howe stated that the society had met to pay tribute to the memory of Dr. Alphonse Dagenais, who died March 4, 1897. He considered it eminently proper to meet and show respect to every member who has departed. In the rush of life a man falls in the ranks, the ranks close up and move on as if nothing had happened. Let us pause a moment to pay respect to one who was an exemplar of professional worth and good citizenship.

The following letters were read by the secretary :

Dear Doctor Gram :

I regret that it will be impossible for me to attend the meeting of the Medical Society of the County of Erie this evening, and that I am thus deprived of the sad privilege of paying tribute to the memory of our deceased friend, Dr. Dagenais.

He was a man of uncommon worth, of great professional and moral rectitude, a conscientious physician and a useful citizen.

The profession and the community are great losers in his taking off,

and a loving family is deeply, grievously afflicted. Let us mingle our tears with theirs and offer the feeble comfort of sympathy in this greatest of human trials.

Very sincerely yours,

WILLIAM WARREN POTTER.

284 Franklin street, Thursday, March 5, 1897.

BUFFALO, N. Y., February 5, 1897.

Dr. F. C. Gram, Secretary :

DEAR SIR—I regret that a previous engagement prevents me from being present at the meeting this evening to take action on the death of Dr. Dagenais.

I cannot, however, let the occasion pass without paying tribute to the high character of Dr. Dagenais as a physician, a man and a citizen. Whenever I have met him, professionally or socially, I have always found him in all respects such a one as we like to know. The profession has been deprived of a valuable member, the city of a useful citizen and his friends of one dear to them.

Yours very truly,

DELANCEY ROCHESTER.

BUFFALO, March 5, 1897.

Chairman Special Meeting of the Erie County Medical Society :

DEAR DOCTOR—I desire to express regret at my inability to be present tonight. More particularly during the last few years I have learned to know Dr. Dagenais and to recognise his good qualities. His kindness of heart, as shown in his intercourse with his patients, will cause very many to mourn his death as a severe personal loss.

Sincerely yours, P. W. VAN PEYMA.

On motion the chair appointed Drs. Ingraham, Rochester and Ernest Wende, to draft a memorial. The committee submitted the following :

MEMORIAL OF DR. ALPHONSE DAGENAIS.

For twenty-seven years Dr. A. Dagenais has been engaged in the active practice of medicine in Buffalo, and during this long period not an unkind word has ever been spoken concerning him by his colleagues or his clients. On the contrary, he acquired a large practice by careful attention to the welfare of his patients, to whom he was especially endeared.

His methods were strictly ethical, his manners courteous and his practice professional in the highest sense.

Called hence in the midst of his ripest years and best work, he is sadly missed by the profession, by his patients whose numbers are large, by the community in which his citizenship was unstained, and, lastly, by a

loving wife and daughter, whose bereavement is the keenest and whose grief we dare not disturb, except with words of kindest sympathy.

Resolved, That the foregoing memorial be communicated to the mourning family, to the BUFFALO MEDICAL JOURNAL, and to the newspaper press.

(Signed)

H. D. INGRAHAM,
DE LANCEY ROCHESTER,
ERNEST WENDE.

Remarks were made by Drs. Ingraham, Dunham, Eugene Smith, Gram, Clothier and the chairman, after which the meeting adjourned.

IN MEMORY OF DR. JAMES B. SAMO.

The Medical Society of the County of Erie met in special session Sunday, March 14, 1897, at 4.30 o'clock P. M.

Dr. JOHN HAUENSTEIN, now the oldest surviving member of the profession in Buffalo, was elected chairman, and on assuming the duties stated that the society had been called together to pay a final tribute to the memory of Dr. James B. Samo, who died March 13, 1897, at the ripe age of 85 years. He recalled some of his experiences with the deceased, which extended over a period of many years.

A committee, consisting of Drs. Lucien Howe, Thomas Lothrop and J. B. Coakley, was appointed to submit a memorial, which reported as follows :

MEMORIAL OF DR. JAMES B. SAMO.

It is fitting that as members of the Medical Society of the County of Erie some record should be made of the death of one of the oldest practitioners among us. Dr. James B. Samo came here when the city was almost in its infancy, and has taken a more or less active part in the professional growth of a typical American town, from a village to one of the largest cities of the country. He has served faithfully during two cholera epidemics, facing contagion in its worst forms, and in a quiet but efficient manner combating a disease that made more havoc with human life than any other form of epidemic which we ever encounter now. This alone would entitle him to be enrolled among the veterans of medical practice, and as such we honor his service and pay this mark of respect to his memory. In addition we feel that his example has not been without its influence upon those with whom he came in contact. His gentleness of nature was carried to an extreme which bordered on diffidence, but his kindly heart was always open to the appeals of those whom he could serve, and he never failed to give such aid as he could without thought of pecuniary reward.

We therefore unite in paying this tribute of respect to a practitioner of long and faithful service, a man of kindly impulses and one generous to a fault.

Signed, LUCIEN HOWE, THOMAS LOTHROP,
 J. B. COAKLEY.

The memorial was adopted and it was decided to attend the funeral in a body.

Remarks were made by some of the members present. Dr. W. W. POTTER said that while he did not enjoy an intimate acquaintance with Dr. Samo, yet he had known him for more than thirty years and had a kindly feeling for his memory. Few, perhaps, knew him intimately, as he was one of those quiet, unassuming men, who never seek prominence. Yet the record he made was most remarkable. A vice-president, then president of this society, and subsequently its librarian for a period of forty years! He must have been more than an ordinary man to retain the confidence of his medical brethren for more than a generation!

Dr. THOMAS LOTHROP gave a brief history of Dr. Samo's last illness. At the ante-mortem request of the deceased an autopsy was held, which revealed a complete occlusion of the common bile duct and a primary cancer of the neck of the gall bladder. Although Dr. Samo had not been a success financially, because he did not have the confidence in himself which his knowledge deserved, yet he fell into the hands of the Good Samaritan and his last days were rendered very comfortable at the Church Home, where the greatest possible care was bestowed upon him. Dr. Lothrop also spoke of his good character and his worth as a man.

Dr. COAKLEY had known him for years and spoke of his calm dignity and gentlemanly bearing under all circumstances.

Dr. HOWE stated that Dr. Samo had inquired, when on his deathbed, whether the doctors would hold a little meeting in his memory after he was gone, and when assured that such would be done the old gentleman seemed content. We cannot judge of him, said Dr. Howe, any more than youth can judge of age. He came on the stage years ago, and was the last of the noted physicians of that period. His name was associated with those of Hamilton, Flint, White and others, honored and renowned, and long since passed away. We of the present, with our knowledge of disease germs, have little conception what it was to go through cholera epidemics, such as invaded this city in 1853-4. We have words of praise for the soldier who stares death in the face, but never a

word about that soldier who moves noiselessly about constantly fighting death. Dr. Samo was one of those whose steadfast courage was manifested during the epidemics mentioned.

After a few words from Dr. Dunham, the society determined by vote to attend the funeral in a body and then adjourned.

IN MEMORY OF DR. FREDERIC W. BARTLETT.

The Medical Society of the County of Erie assembled in special session, March 18, 1897, at 8 P. M., in the rooms of the Buffalo Academy of Medicine, to take appropriate action on the death of Dr. Frederic W. Bartlett.

Dr. JOHN CRONYN was chosen to preside, and announced the death of Dr. Frederic W. Bartlett, which had occurred March 17, 1897.

On motion a committee, consisting of Drs. Hubbell, Wetmore and Barnes, was appointed to draft appropriate resolutions. The committee submitted the following, which was unanimously adopted:

MEMORIAL OF DR. F. W. BARTLETT.

In the death of Dr. Frederic W. Bartlett this society and the medical profession have lost an earnest, active and able member. He was a constant attendant upon medical meetings, was an efficient officer and was original and progressive in his views on medical subjects. He was not only pervaded by the spirit which should actuate the true physician as relates to the medical profession, but was also unselfishly devoted to the welfare of his patients at whatever personal sacrifice. He was everywhere known as a genial, public-spirited and conscientious member of the community.

Resolved, That this memorial be incorporated in the minutes of this society and that a copy be transmitted to the family of the deceased.

Resolved, That this society attend the funeral in a body.

A. A. HUBBELL,
S. W. WETMORE,
E. R. BARNES,

Committee.

Speaking on the adoption of the memorial, Dr. Benedict, as one of the younger members of the profession, laid stress on the cordiality with which Dr. Bartlett treated the younger physicians. He did not believe that Dr. Bartlett had ever refused a patient on the ground of poverty, but had on the ground of dishonesty. His wonderful power of endurance often put to shame many a younger man.

Dr. LUCIEN HOWE said that we should ever show our sympathy by our presence on such occasions as these. We are "the stuff that dreams are made of, and our little lives are rounded with sleep."

Dr. THOMAS LOTHROP was present to show his appreciation for the departed member. He had known Dr. Bartlett as a tireless worker, harder, perhaps, than any other man in Buffalo, who had, probably kept up his work too late in life—a warning to many others. He had used up his vital powers, so that there was no resistance left when the final attack came. He was large-hearted, and did much through motives of charity. Yet there should be a limit. We expect the younger members to do much charitable practice, but the older ones should graduate from it for two reasons: to give the younger ones a chance, and because we cannot afford that kind of work. He was a good general practitioner, well informed, and had good success. His death was a loss to the community and also to the profession. Dr. Lothrop deprecated the lack of interest generally taken in meetings of this kind.

Dr. CROXYN stated that he knew Dr. Bartlett longer than anyone else in this city, that both came to Buffalo about the same time, fifty-three years ago, and for a long period were close neighbors, and always remained fast friends. He related some professional and social incidents out of their respective careers. No one who ever placed himself under Dr. Bartlett's care died for want of attention. He would often go to see patients three or four times daily whom most others would have thought quite sufficient to visit every other day.

Dr. HUBBELL said the deceased was a leader in his profession. No man was so regular at medical meetings, or took a greater interest in the proceedings. He had many distinctive ideas, attractive characteristics, and certain qualities of geniality. He knew him intimately for the past few years, and knew the interest he took in the community and the profession. Dr. Bartlett was one of the first, if not the first, to propose the idea that Buffalo should have an Academy of Medicine, which finally became a successful fact. He gave most liberally towards this, and believed that the Academy should have a permanent home of its own. Toward this end he had worked out a feasible plan. His death is a great loss to the medical profession.

Dr. CALLANAN also spoke of the great consideration which Dr. Bartlett showed his poorer patients, and recalled some pleasant experiences.

Dr. GOLTRA desired to pay a tribute of respect to one whom he had met more frequently than any one else at the bedside. Two prominent qualities impressed him: as a natural born gentleman; and his untiring attention to his patients.

Dr. GRAM spoke of his pleasant associations with the deceased as the presiding officer of this society.

Dr. WETMORE referred to the deceased as a Christian gentleman of the old school. Unwavering in his religious belief, conscientious, kind and obliging, social in his greeting, true to his friends, his neighbors, his profession, himself, his family and his God.

The society then adjourned.

LEGISLATION AT ALBANY.

A SPECIAL MEETING of the Medical Society of the County of Erie was held at the Buffalo Academy of Medicine, March 16th, at 8 P. M., to consider legislation at Albany.

The meeting was called to order promptly at the time named in the card, as a regular meeting of the Academy was to be held at the same place at 8.30 o'clock.

Among the members present were Drs. Lucien Howe, H. R. Hopkins, Edward Clark, Jacob Goldberg, W. W. Potter, W. G. Bissell, Benedict, Wyckoff, Renner, C. S. Jewett, Gram, Pohlman, Dowd, Hartwig, Waterman, Finerty, Grant, Satterlee, Clothier, Milliner and others.

Dr. HENRY R. HOPKINS was elected chairman, and the secretary read the following request for a call of the meeting:

To the Secretary of the Medical Society of the County of Erie:

SIR—The undersigned members of said society respectfully request that a special meeting be called for Tuesday evening, March 16, 1897, at 8 o'clock, for the purpose of considering legislation introduced into the legislature at Albany relating to state medical examinations.

Yours truly,

ERNEST WENDE.

EDWARD CLARK.

WM. W. POTTER.

JOHN PARMENTER.

HENRY R. HOPKINS.

JACOB GOLDBERG.

LUCIEN HOWE.

BUFFALO, March 12, 1897.

Dr. W. W. POTTER read a copy of a bill introduced into the legislature which proposes to amend Section 141 of the state medical practice act so that it shall read as follows:

SECTION 141. *State Board of Medical Examiners.*—There shall continue to be three separate state boards of medical examiners of seven members each, each of whom shall hold office for three years from August first of the year in which appointed. One board shall represent the Medical Society of the State of New York and the New York State Medical Association, one the Homeopathic Medical Society of the State of New York and one the Eclectic Medical Society of the State of New York. Each of these four [three] societies shall at each annual meeting nominate twice the number of examiners to be appointed in that year on the board representing it. The board representing the Medical Society of the State of New York and the New York State Medical Association shall be composed of members from each of such organisations, to be appointed as follows: At the annual session of the New York State Medical Association held during the year eighteen hundred and ninety-seven, nominations shall be made for all the vacancies occurring in such board, by expiration of term, during the year eighteen hundred and ninety-eight; and thereafter the New York State Medical Association and the Medical Society of the State of New York shall each be entitled annually to the appointment of one member. In the years when three members of such board are to be appointed, the appointment of the extra member shall alternate between such two organisations; but when three members of such board are next to be appointed, the extra member shall be appointed from nominations made by the New York State Medical Association. All vacancies occurring otherwise than by expiration of term shall be filled by appointment from the organisation to which the member belonged whose office is vacated. The names of [such] nominees for appointment to such state boards shall be annually transmitted under seal by the president and secretary prior to May first to the regents, who shall, prior to August first, appoint from such lists the examiners required to fill any vacancies that will occur from expiration of term on August first. Any other vacancy, however, occurring shall likewise be filled by the regents for the unexpired term. Each nominee, before appointment, shall furnish to the regents proof that he has received the degree of doctor of medicine from some registered medical school, and that he has legally practised medicine in this state for at least five years. If no nominees are legally before them from a society the regents may appoint from members in good standing of such society without restriction. The regents may remove any examiner for misconduct, incapacity or neglect of duty.

SEC. 2. This act shall take effect immediately.

The following preamble and resolutions were then adopted:

WHEREAS, The Medical Society of the State of New York, since 1806, has been the representative body of the medical profession of the state, constituted as such by statutory law that has been amended

from time to time to meet the changing conditions that have arisen during the present century ; and

WHEREAS, The state society, aforesaid, is made up of delegates and permanent members sent from the several county medical societies, which county societies are therefore an integral part of the State society ; and

WHEREAS, All legal practisers of medicine in the State of New York must be members of the several county medical societies thereof, hence exercise a voice each for himself in the proceedings and action of the state medical society aforesaid ; and

WHEREAS, The medical profession of the State of New York, acting through the county medical societies and the state medical society aforesaid, at great personal inconvenience and expense, after eight years of constant effort, succeeded in persuading the Legislature to enact a law which is administered by the Regents of the University, establishing a state examination for license to practise medicine in this state ; and

WHEREAS, This state examination and license fixes a qualification for the medical profession of the future in this state : and

WHEREAS, The interests of the public health, and the competency of the medical profession, are indissolubly united : and

WHEREAS, Senate Bill, No. 671 (or Assembly Bill, No. 1255), which we have heard read in our presence, proposes a radical change in the manner of the appointment of the members of one of the three separate state boards of medical examiners ; therefore, be it

Resolved, That the Medical Society of the County of Erie is unalterably opposed to the legislation proposed by the bill or bills aforesaid ; and further, be it

Resolved, That we call upon the members of the Senate and Assembly representing the county of Erie in the present legislature, to use all honorable means in opposing its passage, and in preventing it from becoming a law ; and further, be it

Resolved, That a committee consisting of Drs. Edward Clark, Ernest Wende and William Warren Potter, all of Buffalo, be and is hereby appointed to attend a hearing or hearings at Albany, that may be granted by the senate or assembly committees having such bill or bills in charge, said committee to have full power to act for the medical society of the county of Erie in presenting its opposition to these bills to the legislature.

The meeting then adjourned.

HENRY R. HOPKINS, M. D.,

Chairman, pro tem.

FRANKLIN C. GRAM, M. D., *Secretary.*

Progress in Medical Science.

SURGERY.

CONDUCTED BY JOHN PARMENTER, M. D.,

Professor of anatomy and adjunct professor of clinical surgery, Buffalo University Medical College.

NONOPERATIVE TREATMENT OF APPENDICITIS.

FOWLER (*New York Polyclinic*, December 15, 1896,) discusses the question of the nonoperative treatment of appendicitis. Various causes may lead to the substitution of medical for surgical treatment in this disease. These include unsuitable environment for operation, absence of skilled surgical aid, refusal to permit operation, bad general condition of the patient due to other complications, or to a too advanced state of the disease. Speaking of simple uncomplicated appendicitis, the author believes that "with the observance of the principles of aseptic surgery many practitioners possess sufficient anatomical knowledge and surgical skill to carry out an operation for excision of the appendix early in the affection," but many cases die yearly from lack of courage and confidence in his ability on the part of the physician; on the other hand, many cases require the highest skill on the part of the surgeon and of his assistant. Hence, for one reason or another, operative procedures are not adopted. The author then recommends that the following line of treatment be adopted: The patient must be kept absolutely quiet in the recumbent posture, not being allowed to leave the bed for any purpose whatever; all movements should be passive so far as possible, such motions as even turning in bed or sitting up should be done quietly and slowly. The bowels should be regulated by first giving an enema, and if the disease is seen early an adequate dose of Epsom salts should be administered. When cases are seen for the first time later in the disease, it is better to wait three or four days for adhesions to occur and then secure a movement of the bowels with an enema. No cathartics should be employed at this time; no straining on the part of the patient should be permitted. All these precautions tend to avoid rupture of adhesions and escape of infectious material.

Regarding the administration of opium, the author declares it to be "a two-edged sword that cuts both ways, and unfortunately its keenest edge is turned in the direction of the patient's comfort." He further says: "When the diagnosis has been made,

and if the attendant is fully cognisant of the fallacies in the prognosis which this drug gives rise to, and is on his guard against being misled by the apparent improvement in the symptoms which follow its administration, the employment of the drug is justifiable, in the event of a failure of other measures to relieve pain and restlessness. If the question of operating or not operating depends upon the improvement or otherwise, since the drug cannot save the patient, but only ameliorate his symptoms, it should be withheld. If improvement is noted and no opium has been given, there can be but slight opportunity for error, particularly if the symptom of localised tenderness be carefully watched and noted at its full value. With the patient under the influence of opium, it is not possible to intelligently discuss the question of operation, if this is to turn upon an accurate estimate of the patient's condition, for the reason that it is not possible to form such estimate; neither can it be known whether convalescence is assured or a catastrophe impending."

The writer believes that treatment by drugs alone is equivalent to relying upon nature, and that when used the main indications are to relieve suffering and to protect, as far as possible, against perforative and infectious peritonitis and general septic infection. Therefore, opium is to be used in the smallest dose necessary to keep the patient approximately comfortable. He says of it: "If carefully watched it may be employed. It must be confessed, however, that in spite of the general prevailing opinion upon this point it is more difficult to state the indications than the contra-indications for its use."

Local applications are of doubtful value. They may be used either hot or cold, according to the comfort of the patient and the effect produced. Nutrition must be maintained by appropriate food. The skin and kidneys are to be kept functionally active. Antipyretics are usually contra-indicated, for the reason that they mask the disease and cannot benefit a fever which is septic in origin. Tonic doses of quinine may be given. Strychnia in hypodermatic doses of grain 1-30 is useful. Spartein (grain $\frac{1}{4}$), combined with nitroglycerine and caffeine, assists renal elimination by increasing the blood pressure.

When an appendical abscess or an intraperitoneal encapsulated suppurative collection ruptures, the treatment varies with the route taken by the escaped material.

Perforative peritonitis being usually fatal, the treatment

resolves itself into producing euthanasia, with anodynes used hypodermatically on account of the early and persistent vomiting which characterises this condition. When the discharge is into the intestinal canal, the diarrhea is not to be checked; when into the bladder, treat the resulting cystitis; when into the vagina, use vaginal douches and apply an antiseptic pad; when into the pleural cavity, the pus must be evacuated or the patient dies miserably. This may also be the case where the pus escapes into the posterior peritoneal connective tissues of the back or through the pelvis down into the thigh or into the layers of the abdominal wall.

Septic hepatitis and pyemia may occur, and while always grave, recovery may take place.

The author concludes his article with the expressed belief that, with the exception of the cases that are nonprogressive in character for the first twenty-four hours, and which recover after simple rest in bed and the exhibition of a saline, cases of appendicitis that recover under so-called medical treatment do so from the *vis medicatrix naturæ*, to a large extent, and that the efforts of the physician will be directed toward assisting nature in walling off the septic material.

FULMINATING APPENDICITIS.

CRUTCHER (*International Journal of Surgery*, January, 1897,) contributes an interesting article upon fulminating appendicitis, which begins with the expressed opinion of several of the leading surgeons of America upon two practical points put in the form of interrogatories—namely:

1. Do you know of any ordinary means by which perforation can be foretold?

2. What have been your results in fulminating appendicitis?

The answers are unanimous to the effect that perforation cannot be foretold with any certainty and that operation is practically useless. After relating cases of his own in which the typical symptoms of general peritonitis have been present, the author goes on to state that shock is the most reliable guide in appendicitis and that the pain, the pulse, the temperature and other symptoms are not accurate enough to be scientifically classified. He says of shock that it tells "a pretty accurate story and its meaning in appendicitis cannot be mistaken. Unfortunately, in many cases the landmarks of shocks are too obscure to afford much help in

reaching a conclusion." He sums up his article with the following statements :

Pain.—If violent, sudden and persistent, it indicates probable seriousness of the attack, but indicates nothing as to the natural defenses for limiting infection. On the contrary, absence of pain is undecisive between gangrene and resolution.

Pulse and Temperature.—While a rapid pulse and high temperature favor the destructive process, their absence is no assurance of recovery. Referring to this, Tyson remarks that "too much stress cannot be laid upon the fact that there may be gangrenous appendicitis in the presence of normal temperature."

Shock.—The presence of shock, if undoubted, is a very grave symptom, generally indicating perforation. On the contrary, the most deadly attacks often occur without it.

Sensitiveness.—If persistent and highly developed, generally indicates destructive inflammation, but gives no clue concerning the limitations of infection.

The Expression.—Of no material value before the development of grave conditions.

Perforation.—This can no more be foretold than the perforation of typhoid or the rupture of an aneurism.

My own practice is to save the patient first by operating upon nonseptic tissues, if possible, and to argue the case afterward.

SURGICAL TREATMENT OF PERFORATING TYPHOID ULCER.

FINNEY (*Annals of Surgery* for March, 1897,) contributes an article on The surgical treatment of perforating typhoid ulcer, which contains an excellent résumé of this now important subject. He devotes some space to the early history of the condition and collects from the literature on the subject some forty-six cases, adding to this number six hitherto unpublished cases, three of which were his own. Our present knowledge relating to the conditions under which perforation of the ulcerated Peyer's patches occurs is briefly reviewed and the following conclusions deduced : Perforation of the intestine occurs in from 1 to 2 per cent. of all typhoid cases. As a cause of death in fatal cases it is found in between 6 and 7 per cent. It occurs in the ileum, usually within the last two feet, in over 80 per cent. of all cases; in the large intestine, in more than 12 per cent.; in the appendix vermiform, in about 5 per cent. of all cases. It is usually single, but may be

multiple. No definite relation between perforation and severity of the attack has been noted. It occurs in mild as well as severe cases. The symptoms marking the onset may be sudden and severe, very mild or entirely wanting. It occurs oftener in men than women, the ratio being three to one. It is rarely met with in children. It occurs most frequently between 20 and 30 years of age and in the third week of the disease. The duration of life following perforation is, as a rule, short. The statistics of Fitz are quoted, which give over 37 per cent. dying on the first day, over 29 per cent. on the second day, and over 83 per cent. of all cases during the first week. The perforation is always followed by a suppurative peritonitis, general or localised. When localised, the termination is much more favorable. Recovery after intestinal perforation has occurred and, therefore, the accident, while always severe, need not prove fatal in every case. The fact is noted in this connection that peritonitis, which often proves fatal, may develop in the course of typhoid fever without any discoverable perforation of the intestine, which means that peritonitis may occur from other causes than perforation, such as rupture of softened mesenteric glands, abscesses of the liver, perforating ulcers of the gall bladder, softened infarcts of the spleen, and the like. In this connection the author quotes Fitz, for he has very aptly remarked: "Since perforation of the intestine in typhoid fever may take place without any suggestive symptoms, and since suggestive, even so-called characteristic, symptoms may occur without any perforation having taken place, it must be admitted that recovery from such symptoms is no satisfactory evidence of recovery from perforation."

It is, therefore, impossible to estimate the true percentage of recoveries from perforated typhoid ulcers without operation, and of deaths where no autopsy has been made.

The author then gives some statistical data regarding the cases collected which need not be reproduced here, but which deserve the attention of all persons interested in the subject. The author's conclusions may, however, be summarised :

The age and sex bear out pretty closely their respective percentages as quoted in the beginning of the paper.

The third week is by far the most frequent time for the occurrence of perforation. It occurred more frequently in mild than in severe cases. The most constant and characteristic sign of perforation recorded was sudden, severe abdominal pain, persisting

with increasing intensity for some time. Nausea and vomiting were present in about 50 per cent. of the cases.

How long the time between perforation and the operation affected the result does not appear. Some cases operated upon early died the soonest, and vice versa. However, both reason and the little evidence deduced from these cases bear out the presumption that the best time for operation is as early as possible following perforation, and after the patient has recovered somewhat from the primary shock and collapse. The operation should be thorough and all perforations noted. Time will be saved by examining the last two feet of the ileum and noting the condition of the cecum and appendix.

Irrigation is not considered as safe as wiping the peritoneal cavity. The perforations are dealt with by bringing the perforated part out of the abdomen and leaving it there for subsequent resection and anastomosis after the patient has recovered from the fever. The edges of the ulcers where small and where the surrounding tissues are healthy are sutured without previous excision of the edges, the evidence being that union of the opposed peritoneal surfaces takes place as satisfactorily in cases where the edges of the ulcers are not excised as in those which have been so treated.

Drainage should always be employed. In general septic peritonitis the contents of the peritoneal cavity should be treated by evacuation of its septic contents and then by the establishment of effective drainage, which is best accomplished by means of wicks of bismuth or iodoform gauze carried into the different parts of the cavity and their ends brought out through the abdominal wound, which can be tightly sutured throughout the rest of its extent. Drainage in the most dependent portion should be practised more often than it is.

The question of differential diagnosis is then taken up and particular attention given to the marked leucocytosis occurring at the time of perforation.

Medicinally, if stimulation is necessary, reliance is to be placed on hypodermics of strychnia, enemata of several ounces of hot black coffee and the transfusion into the cellular tissues under the breast of a quart or more of the normal salt solution. When there is such distension the bowels should be moved early and thoroughly by calomel in broken doses, followed by salts, and, if necessary, a high turpentine and soap suds enema.

The writer sums up his impressions as follows :

“(1) Of all the so-called diagnostic signs of perforating typhoid ulcer most reliance is to be placed upon the development of an attack of severe, continued abdominal pain, coupled with nausea and vomiting, and at the same time a marked increase in the number of white blood corpuscles.

“(2) The surgical is the only rational treatment of perforating typhoid ulcer.

“(3) There is no contra-indication to the operation, surgically speaking, save a moribund condition of the patient.”

GENITO-URINARY AND SYPHILITIC DISEASES.

CONDUCTED BY BYRON H. DAGGETT, M. D., Buffalo, N. Y.

TREATMENT OF SYPHILO-DERMATA.

GOTTHEIL, (*Clinical Medicine*, November 25, 1896,) after careful trial of various methods of treating syphilo-dermata, formulates the following conclusions :

1. In the primary stage use calomel locally and no general treatment.

2. As soon as the secondary period is established, internal treatment for mild cases should begin by the administration of $\frac{1}{4}$ to $\frac{3}{4}$ grain of protoiodide of mercury, three times daily, continued for three months or until the symptoms disappear.

In severe cases, characterised by pustular eruptions, anginas, headaches, and the like, a course of six to ten intramuscular injections of five to ten minims of albolin, holding 10 per cent. of calomel (fifty grains to the ounce) in suspension, should be administered at intervals of five to fifteen days.

3. Following this course of injections and cessation of the symptoms of syphilis, tonic treatment should be continued for three months.

4. Then give a second calomel course, as described above, adding fifteen grains of iodide of potassium in milk after meals. This course should be carried out whether there are any secondary manifestations or not.

5. Following this there should be an intermission of specific treatment for six months, unless syphilitic manifestations again appear.

6. In the second year, if marked tertiary lesions appear, give iodide of potassium in increasing doses of sixty to 600 grains daily, as may be necessary, and in addition give the calomel injection.

tions ; if the lesions do not reappear, give a mild course of the protoiodide of mercury.

The mercury plaster-mull is the best local treatment of syphilodermata.

ARGONIN IN GONORRHEA.

DR. J. W. DANIEL (*American Therapist*) reports his clinical experiences with this remedy in twenty-six cases. It is claimed that argonin does not irritate the urethral mucous membrane, even in concentrated solution. Argonin is soluble in hot water up to 10 per cent.; it is not decomposed by albuminous substances or precipitated by sodium chloride. Fifteen parts contain as much silver as one part of silver nitrate.

There was no complaint of pain or irritation from any of the twenty-six cases, although twenty of them were in the acute stage. On the contrary, scalding and inflammation rapidly subsided and cordee disappeared within twenty-four hours after its use. In the twenty acute cases the gonococci disappeared entirely in from four to six days. Fifteen grains were used to the ounce of water, and six to eight daily applications were made.

A 5 per cent. solution is fully as efficacious in destroying the gonococci as the stronger solution. The urethral syringe was used for three or four days and then followed by the long-nozzled syringe, and the patient was directed to hold the solution eight or ten minutes.

The discharge ceased about the seventh day in the majority of cases, and the injection was continued for six or eight days as a precautionary measure. As soon as all mucous strings or threads disappeared from the urine, the cure was regarded as complete. There were relapses in two cases, which were readily cured by repetition of the treatment. All uncomplicated cases of acute gonorrhea may be cured in from twelve to eighteen days if this treatment is properly followed out. Dr. Daniel expresses himself as more than satisfied with the results so far obtained from the use of this drug.

EXTERNAL APPLICATION OF PILOCARPINE IN THE TREATMENT OF NEPHRITIS.

MOLLIERE, in 1894, proposed the external use of pilocarpine for the treatment of nephritis. The treatment consists of rubbing into the dorso-lumbar region an ointment composed of three ounces

of vaseline, and from three-quarters to one and a half grains of pilocarpine nitrate. This ointment is to be applied every morning and covered with a layer of cotton, which remains on during the day.

Julia (*Lyon Médical*, December 6, 1896,) reports eighty patients treated by this method. Some of these patients had acute nephritis and others chronic nephritis. The chronic cases were much improved; the acute were rapidly restored to health. During the treatment the albumin often entirely disappeared. These inunctions produced marked diaphoresis and diuresis. Brouowski alleges that strontium lactate, given in six daily doses of fifteen grains each, is the most valuable remedy in the treatment of acute inflammatory conditions of the kidney. It appears that, like many other conditions, there is more than one way of successfully treating acute nephritis.

Correspondence.

LETTER FROM DR. D. B. ST. JOHN ROOSA.

Graduated Tenotomy for the Relief of Asthenopia.—Use of Mydriatics in Determining Refractive Errors.—Comments on Dr. Rider's Paper.

To the Editor :

SIR—I beg leave to express my interest in the article, appearing in the March number of your esteemed JOURNAL, entitled, *The Rational Treatment of Asthenopia*, by Dr. Wheelock Rider, of Rochester. My interest is not entirely due to the well-narrated cases of asthenopia there reported, which have been treated by graduated tenotomy, but largely to the conclusion, in which Dr. Rider states that he wishes to place himself "on record in 1896 as saying that graduated tenotomy for the relief of asthenopia is, as a rule, irrational and dangerous."

As early as 1890, in a paper read before the Academy of Medicine,¹ and in an article in the *Ophthalmic Review*,² I formally called the attention of the profession to the erroneous doctrines so vociferously and widely proclaimed as to the cure of so-called muscular asthenopia by prisms and tenotomies. I urged, from long

1. March 20, 1890, in *Medical Record*, April 19, 1890.

2. *Ophthalmic Review*, October, 1890.

experience, the unreasonableness of hoping for anything from such practices. I also spoke on this subject in the ophthalmological section of the Berlin Congress of 1890, in English and German, without successful or scarcely any contradiction. Taval, at this meeting, confirmed my views from his earlier and better investigations.

I continued these demonstrations of the worthlessness of the treatment of asthenopia by prisms and tenotomies, in various articles published in various places, especially in the *Transactions of the Medical Society of the State of New York*, 1892, in the *Medical Record*,³ and in the *New York Medical Journal*. I have also, in my work on the Eye (September, 1894,) given very fully my reasons for a belief identical with, or even more radical than that of Dr. Rider, of this irrational treatment, and which he has so well presented in his interesting paper. My voice on this subject has very often appeared to me to be that of "one crying in the wilderness,"—to have received very little attention, compared to what it deserved. It is only in our country that this "irrational" treatment of asthenopia has ever acquired any prevalence or prominence. It is now fast falling out of the consideration of ophthalmologists of experience, especially those who deal with large numbers of patients in eye hospitals, although few print their recantations. It is very unfortunate, in my judgment, that it still is in sufficient vogue to receive serious thought at the hands of men whose observations have been so extensive as those of the writer of the article I am commenting upon.

I cannot conclude my note of approbation of Dr. Rider's paper without expressing the hope that he will very soon agree with my teaching, also some years old, that a mydriatic is not necessarily used for the purpose of determining the refraction in all eyes, not presbyopic, as stated by him. I have repeatedly endeavored to show the use of a mydriatic to be scarcely ever necessary, even for young people, in the determination of the existence and degree of errors of refraction, and for ascertaining the origin of asthenopia. If the cornea be accurately measured,—as it now can be quickly and readily by every ophthalmologist,—it is very easy, by means of test glasses and the ophthalmoscope, to ascertain the degree of axial hypermetropia or myopia, and order the proper glass without the use of a mydriatic of any kind. If the patient is able to hold his or her eyes still enough to allow us to measure the cornea, the

3. November 26, 1892.

use of atropia is wholly unnecessary, except for the purpose of therapeutics, and these cases,—if we exclude inflammatory conditions—occur very infrequently.

I trust Dr. Rider will take another step forward, and emancipate himself from what I deem to be a troublesome, time-consuming, and not always safe method of determining the refractive power of the eye.

D. B. ST. JOHN ROOSA.

20 E. 30th St., New York, March 19, 1897.

MONOPOLISTIC CONTROL OF MEDICAL LITERATURE.

LETTER FROM DR. GEORGE M. GOULD.

PHILADELPHIA, Pa., March 4, 1897.

To the Editor :

SIR—The editors of the *American Year-Book* must be gratefully sensible of the courtesy and general justice of your remarks in reviewing their work in the March issue of your valuable journal, and especially as regards the wisdom of the physician taking a goodly number of medical journals and the impossibility of any digest replacing his subscriptions to these serials. I was astonished and pained, however, by your remark that the profession has no interest in the monopolistic control of medical literature.¹ Is it not plainly to the interest of every individual contributor, and especially when he gives his contributions without any compensation, to have it abstracted and brought before his colleagues by digests and reviews ?

You certainly, also, cannot be unaware of the great advantage to medical science and progress generally of the German *Jahresberichte*, *Jahrbücher*, and the like. Is it not most evident that these epitomisations of knowledge are of the profoundest practical advantage in bringing before every member of the profession the elements of progress and the scattered advances made all over the world ? How, then, can it be said that an attempt to prevent this dissemination on the part of a lay publisher, carried out persistently in the case of the only two thoroughgoing attempts that have been made in English (*Sajous's Annual* and the *American Year-Book*), has no professional interest ? Surely, Mr. Editor, you had not

1. What the JOURNAL said was, in effect, that it had no special interest in the differences between Dr. Gould and Wm. Wood & Co. We have kept the matter out of our columns until now : but having been requested by both sides to let them speak, we reluctantly consent.—EDITOR.

considered the matter carefully. The two following letters make it plain that it is a matter of commercial policy on the part of Wood & Co., and the same policy carried out for eight years in reference to Dr. Sajous's excellent annual proves that the profession must see to it that its gratuitously-given contributions shall not be used by a purely commercial firm to do injury to individual medical men, by lessening the circulation of their discoveries and clinical results; the profession should not be prevented from supplying every brother of the guild with the scattered results of progress gained. That no other publisher in the world has taken such a stand should arouse the profession to the danger that would ensue from a possible like action of all other publishers. Will you not reconsider your editorial position on this important and by no means personal or special policy? These letters, in conjunction with the editorial statement in the *Medical Record* of February 13, 1897, make it clear what motives are at work:

(Copy.)

NEW YORK, September 10, 1896.

Dr. Geo. M. Gould:

DEAR SIR—Replying to yours of the 7th inst. respecting the *Year-Book of American Medicine and Surgery*, we would be very pleased to do anything we could to accommodate you personally, but, very candidly, we do not feel disposed to do anything whatever to assist your publisher. His methods of work with authors and booksellers are such as do not commend him to us as a competitor in business. We say this without a particle of animosity, simply in a cold-blooded judicial way. We are not willing to assist anyone to eat into our business, if we can avoid it. Kindly consider this statement of facts to be entirely aside from our cordial good-will towards yourself.

Very respectfully yours,

WM. WOOD & CO.

(Copy.)

OCTOBER 27, 1896.

Dr. Geo. M. Gould:

DEAR SIR—In reply to yours of yesterday with reference to selling casts of illustrations to Mr. Saunders, we beg to say that we have never considered the reprinting of articles from our journals to be of any appreciable value to us or to others. Considering the fact that there are already more medical books published than profitable sale can be found for, we have always thought books of that kind an injury to the medicine book-publishing business. Mr. Saunders has called upon us relative to this matter and stated the case fully and courteously. As it

is strictly a matter of business, we would very much prefer that it should be left for settlement with the business parties interested.

Very respectfully yours,

WM. WOOD & CO.

By GEO. S. NILES.

Whether this is "strictly a matter of business" in which professional interests are not concerned is a question for the profession to ponder most seriously before deciding. With the quarrels of lay publishers we have no concern, so long as the dissemination of medical literature is not hindered; but when a lay publisher attempts to monopolise that literature after its gratuitous gift to him by a profession above all things averse to scientific monopoly, it is time that the professional conscience and interest were aroused.

Cordially yours,

GEO. M. GOULD.

119 S. 17th Street.

REPLY OF MESSRS. WILLIAM WOOD & CO.

NEW YORK, March 11, 1897.

To the Editor :

SIR—Referring to the foregoing communication of Dr. Gould we beg to state that for nearly two years Mr. W. B. Saunders, the publisher of the work of which Dr. Gould is editor, has been most frequent in his requests for illustrations from our publications. While it is not unusual, in the courtesy of the trade, for one publisher to extend this accommodation to another, yet among the older houses it is a favor asked with moderation, if not with hesitation. Mr. Saunders, a new-comer in the ranks of medical publishers, has, on the contrary, apparently felt no such delicacy, but in the past eighteen months has applied to us for the cuts, or the permission to use them, of nearly seventy illustrations. We naturally became somewhat impatient, not only of this wholesale use of our facilities, but by the trouble and annoyance attending the unprofitable satisfying of his request, and told Mr. Saunders so.

Last September, Dr. Gould, for some reason, injected himself into this business correspondence and wrote us, asking, in a general way, if he might have some cuts from our journals to illustrate abstracts therefrom. We replied that, while personally most friendly disposed toward him, we did not much care to assist his publisher. Dr. Gould then wrote us, October 26, 1896, criticising our views in the matter, and requesting a reconsideration. To this

we replied that our views were unchanged, that we had fully stated them to Mr. Saunders, who had meanwhile called upon us, and requesting Dr. Gould to permit his publisher and ourselves to settle this business transaction.

On November 2d, in response to his request, we made for Mr. Saunders a set of electrotypes of some cuts which he desired. Notwithstanding this, Dr. Gould again wrote us the remarkable letter, (dated December 1, 1896,) a copy of which is as follows:

"However much I may dislike correspondence with you, and despite your absurd contention that I, as editor of the *American Year-Book*, have nothing to do with the source, choice or illustration of articles used in our report, I reluctantly write you once more in reference to the matter. I wish to learn definitely if you still persist in refusing my request of permission to abstract, quote and reproduce the illustrations, at my pleasure and that of the departmental editors, from articles published in your journals? I ask the question again, because, after your repeated refusal, and when, after great expense and trouble, the abstracts of such articles had finally been cut out of the make-up, when, therefore, the illustrations were no longer of any earthly use to us, you tumble in upon us a lot of electros which, if sent when requested months ago, would have been gladly used. This sort of method of doing business is wasteful, silly and disgusting. I must at once notify my departmental editors to use no material from your journals during the coming year if you persist in your refusal. There must be a definite understanding. After a year or more of correspondence everything is higgledypiggledy, which must be ended. I must have a categorical answer to the following questions:

"Do you or do you not give me and my editors the right to abstract, quote and reproduce illustrations from your journals at our pleasure?" Please answer this simply *yes* or *no*. If in three days I receive a negative answer, or no answer at all, I shall instruct the editors accordingly—and then, I may add, I shall at once proceed to let the medical profession know the stand you have taken.

(Signed)

GEORGE M. GOULD."

Such a communication we consider unworthy of notice and as placing the writer below the plane of our further consideration. We have since ignored him.

We never refused any request of Mr. Saunders to abstract from our publications, nor, with one exception a long time ago, have we ever declined to allow him the use of cuts.

Dr. Gould's statements in his letter to the members of the medical profession, of December, 1896, which has been published in several journals, are, therefore, not only unjust and misleading, but untrue.

Had the whole matter been left entirely to Mr. Saunders and ourselves we have no doubt that all parties would finally have been satisfied. Dr. Gould, by his interference, has forced an issue not contemplated by us by his letter of December 1, 1896, by his subsequent letters to the medical press and by his last abusive letter to Dr. Shrady, which, as published in the *Journal of the American Medical Association* of March 6, 1897, is as follows :

MONOPOLISTIC CONTROL OF MEDICAL LITERATURE.

PHILADELPHIA, February 20, 1897.

To the Editor of the Medical Record :

SIR—In your editorial columns (issue of February 13, 1897, pp. 234-5,) you permit a letter to be published as your own ("Both editors and publishers") which is so diametrically opposite in view to that you personally gave myself (in company with Dr. Pyle) when calling upon you, that I must beg for a word of explanation in reply. Where is now your "dead line" across which you repeatedly said your publishers could not go in control of your editorial utterance? Moreover, who are the "editors" of the *Medical Record*? Your announcement cites yourself as the single editor. If there are others they should certainly be named, as the profession should know its members who take this attitude to professional interests.

And now, sir, of what use is it for you to allow such statements to appear in your columns as the following?—that you would be "the last to countenance any action which might interfere in the slightest degree with the fullest and freest dissemination of medical knowledge." "The *Medical Record* has always allowed the free use of the original matter contributed to it for all reputable purposes, provided that due credit is always given to the original source of publication," and the like. Now, my dear doctor, you know this is all untrue, and that it is easily proved untrue.

Let me first attend to the insult conveyed in the words, "reputable purposes." Of course, you were fully aware of the intended inference and insult. Since your employer's refusal to allow the *American Year-Book* to use articles from your columns in its digests which, you say is never refused for "reputable purposes," it follows plainly enough that all the editors of the *American Year-Book* are, in your opinion, engaged in a disreputable or nonreputable undertaking. We thank you for your high opinion of us, but can hardly agree with you. Neither does the medical profession, judging from appearances.

Let me make another quotation from your editorial: "The letter above referred to, while plausible on its face, is misleading in its intent, inasmuch as it implies that our course in this one instance might be considered as characteristic of our general policy, than which nothing

is more untrue." This aspect of the affair is evidently worrying your publisher a great deal and so he makes the most sweeping denials possible that he is not guilty of trying to prevent the dissemination of medical knowledge. The denial will avail nothing. American physicians have already decided that the *American Year-Book* is not disreputable, and so long as you and your publisher keep your reasons absolutely hidden you will be credited with a very evident and very sordid motive. Your contributors must smile derisively when they hear you say that you "would be the last to countenance any action," and the like, and yet in the same editorial you confess that they cannot have their articles noticed in the *Year-Book*. Something more than stentorian proclamations of self-righteousness is necessary to deafen them to such wonderful logic.

What, then, will they say when they learn that this one instance is by no means single, and that these same "publishers and editors" have for eight years persistently refused the same privileges to Dr. Sajous and his sixty-six editors of the *Annual*, a publication that has had to go on as best it could all these years with the same denial on the part of the *Medical Record* publishers. Of course, the *Annual*, again by necessary inference, is "disreputable," but, again also, the profession disagrees.

Now, sir, as a physician you well know the wondrous service to the science, the art and the practice of medicine rendered in Europe by the epitomes of the world's medical knowledge, *Jahrbücher*, *Handbücher*, and the like. Their use is simply incalculable. Your publisher (and also you, since you pronounce his cause just,) must yet settle with an outraged profession for refusing to allow the use of the gratuitously given literature over which the profession has unwittingly given you a legal control, and in the only two "reputable" and thoroughgoing attempts to supply this want to English and American medical men.

And I cannot see that our just indignation is softened any by the claim that this outrageous action is motivated now on "personal," now on "sound business" reasons. It seems to me that such a claim makes your case all the worse before a professional jury, and that in making such a sorry excuse you confess that you are willing to harm the profession to any degree so that you satisfy some private grudge or financial aim. This is all the more noteworthy coming from a firm that has for many years in similar handbooks made most sweeping and wholesale use of all serial medical literature, not only that given gratuitously to lay publishers by the profession, but whole books and by the dozens. (See Dr. Murrell's letter in *British Medical Journal*, October 11, 1890.)

I had intended not noticing the personal insult levied at me. Despite your publisher's and your own great solicitude to reduce this controversy to "personalities," "peculiarities" and "sound business reasons," neither of these things has anything whatever to do with the

whole matter. If your reasons are honorable, for heaven's sake out with them! "If not a settled policy," we may be able to find more than nine years of history and two competing publications to prove it. I by no means intend that the principles at issue shall be allowed to be made confused by any such alarms to distract the enemy's attention. In the present instance, your contemptible charge that I have no higher motive in this whole matter than to advertise a book of which I am one of twenty-eight editors, and that I allow my publisher to use my editorial utterances purely as his advertising medium, is—well! What may a gentleman say to such an insult? I am perfectly willing to leave such impertinence to be answered by the three publishers with whom I have had close business relations and with the readers of the *Medical News*. Some men, my dear sir, are very prone to ascribe low motives to others, but the reason is proverbially known. Oh, no, the instances are too few, but they exist, of editors who are not the jumping-jacks of their publishers. No publisher could have forced into my editorial column such an editorial as this of yours under discussion. Mr. Saunders had no hand in the writing of that circular, was not consulted about it, knew nothing about when or where it was mimeographed, mailed, and the like. It was solely and wholly my own work. He has no more knowledge concerning this letter. Instead of all this shameless trying to turn the issue and of all these blank denials, it would be far more to the point if you would explain to your contributors how it is not against their interests to refuse to allow their gratuitously given articles to be abstracted and illustrated in the only two (not in only one, as you say,) earnest attempts that have been made to get up in English something comparable to the immensely serviceable and necessary German *Jahrbücher* and epitomes of medical progress. Also please explain how it is your action does not prevent the dissemination of medical literature. If it does not do so, the necessary inference is that your two journals, in your own estimation, contain nothing worthy of being thus used in a résumé of medical science and progress. Lastly, will you not explain to the sixty-six departmental editors of *Dr. Sajous's Annual* and to the twenty-seven gentlemen connected with the *American Year-Book* in what way these two publications are disreputable or nonreputable? Are they not quite as reputable as your publisher's similar Handbook, and the like, and his pirated whole books of our English colleagues republished without their consent, and sometimes against their command and to their financial loss, as in those instances when other American publishers would have paid them for the right to reprint had it been possible to guard against the American pirate?

I reserve a little clarifying discussion of your publisher's position until a later date.

Cordially yours,

GEO. M. GOULD.

119 S. 17th Street.

The original of this was sent to Dr. Shrady, including some additional personalities, cut out in the published copy, with a request that it be published in the *Medical Record*.

We regret extremely that a man of Dr. Gould's previous reputation should have made such an exhibition of himself, and we think quite likely that he will endeavor to pursue this matter further if he can get any medical journal to print his letters. As we have said before, we shall not enter into any controversy with Dr. Gould, but we must emphatically deny his, we believe, intentionally misleading statements; and if it be a question of veracity between Dr. Gould and the firm of William Wood & Co., we are willing to let it rest on that basis.

Thanking you for your courtesy, believe us, as ever,

Very truly yours, WM. WOOD & CO.

THE TREATMENT OF VOMITING IN TUBERCULOSIS.

In the *Revue de Théraputique Médico-Chirurgicale*, of December 1, 1896, Mathieu is reported to have recommended the employment of the following treatment in this troublesome condition. He first points out that the vomiting largely depends upon the fact that the stomach is reflexly irritated from the pneumogastric nerve by the diseased condition of the lung. For this reason small pieces of ice or one to two teaspoonfuls of chloroform water may be given every ten minutes for several days to allay gastric irritability after food is taken. After the meal the following mixture may be given:

R Menthol, 3 grains.

Syrup, 5 ounces.

The chloroform, however, constitutes the most efficacious form of medication.

In the discussion which followed Mathieu's paper, Ferrand stated that he had gotten the best results from diminishing the sensibility of the pharynx by the application of 10 per cent. solutions of bromide of potassium in glycerin.—*The Therapeutic Gazette*.

BISMUTH PASTE FOR ORCHITIS.—A thick paste (*Southern Practitioner*) consisting of subnitrate of bismuth and water is the best application for swollen testicles. It relieves the pain and the burning sensation, and the swelling rapidly subsides. It is equally successful for burns and as an application for sunburn and blistered skin.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITORS:

THOMAS LOTHROP, M. D. - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

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No. 9.

THE PLAGUE.

THE reappearance and frightful devastation of life in India by the bubonic plague calls attention to one of the oldest-known and most abhorrent diseases afflicting the human family. Essentially a disease of *bad hygiene*, it has descended upon the people of those countries where cleanliness and sanitation were unknown and unthought of, and was consequently of frequent occurrence in Europe, Asia and Africa from the earliest writings up to the revival of learning in the sixteenth and seventeenth centuries. Especially prevalent was it during the fifteenth century in Northern Africa, Egypt, Arabia, Syria, Palestine, Asia Minor, Persia, India, China, and Europe generally. In the latter part of the seventeenth century a remarkable lessening of the area of prevalence of the disease began to take place. From 1660 to 1680, plague disappeared from Italy, England, Western Germany, Switzerland, Netherlands and Spain. During the next century but two serious outbreaks occurred in Europe, the first (1703-13) involving Turkey, Austria, Bohemia, Poland and Eastern Germany and the second (1720-22) involving Provence. At the close of the first third of the nineteenth century the area of prevalence in Europe was confined to the easternmost part of the Turkish Empire, and in 1841 plague ceased on the continent altogether. While this change was going on in Europe, the plague disappeared from Northern Africa (except Egypt), from Mesopotamia, Persia, and in 1844 in Asia Minor, Palestine and Syria. Since then it has been confined almost entirely, epidemically, in China and India especially, while sporadic limited outbreaks have taken place in Persia, Asia Minor and occasionally in Arabia.

Several memorable outbreaks have taken place, especially the "black death," which spread over the whole of Europe and Asia in the fourteenth century, causing an inconceivable mortality; the great plague of London, 1665; also the outbreak of 1780 in Marseilles; the plague of Moscow, 1770, and the later outbreaks in Turkey, Syria and Egypt. These have become historical from the fatality which accompanied them. But still more memorable, from these terrible outbreaks, will remain the one which occurred in Hong Kong in May, 1894, when Kitasato discovered the true cause underlying the dreaded disease.

The bacillus discovered by Kitasato is a short rod with rounded ends, resembling the bacillus of chicken cholera, growing in a perfectly characteristic manner. His conclusions regarding the bacillus are as follows: (1) In the plague, bacilli are found in the blood, glands and viscera. (2) This particular bacillus is not found in any other disease. (3) Obtained in pure culture, it is capable of producing in inoculated animals the same effects as in human beings. (4) It gains entrance into the body through (*a*) the respiratory tract, (*b*) excoriations of the skin, (*c*) the digestive tract.

It may, therefore, be said that its cause, once discovered, therapeutic procedure will soon be advanced to cope with this most fatal disease, and these means have already been tried in the Bombay epidemic with considerable success.

TOPICS OF THE MONTH.

THERE seems to be no end to the perplexities that arise concerning the state medical practice act. The medical profession of the state of New York struggled from 1883 to 1890 to establish a separate state examination for license to practise medicine. Finally, a law was approved, June 5, 1890, to take effect September 1, 1891, providing for a state medical examining board to be appointed by the regents of the University of the State of New York, on the nomination of the three state medical societies representing the several so-called systems of medicine recognised by law. This plan, that seemed somewhat complicated at first, has proven to be a practical solution of what appeared to many to be at first a difficult problem.

The law, however, had hardly taken effect when malcontents and persons with grievances, real or fancied, began to move for amendments. First came the students, who, not satisfied with fifteen

months' notice to prepare for the new conditions, prayed for exemption from the operations of the law for another year. The legislature granted this petition, under which 913 medical students, alarmed at the new order of things, obtained exemption from the provisions of the law. A similar attempt was made the following year, but this was defeated, and, in so far as students were concerned, the principle of separate examination for license was definitely settled.

Meanwhile, some of the colleges, emboldened, probably, by the success in the first instance of the students, began to demand modifications of the law that should grant either individual or general concessions in its application. These, too, were met and defeated, year by year, in the legislative halls in their attempt to weaken the system and lower the standard. The most conspicuous example occurred about a year ago. Every available influence was then brought to bear to insure success, and when failure came it was hoped and believed by the friends of higher medical education that the struggle was over, that the discontented elements were routed and that the law henceforth would be permitted to work out its own beneficial results in peaceful serenity.

Now, however, when all is working smoothly and well, comes the New York State Medical Association, or at least a few disturbing members in that body, (for we are advised that there is not unanimity, nor is the effort being taken as the official act of the association,) asking to be recognised in the personnel of the state examining board to the extent that the association be allotted one-half of the examiners. The men who have been most conspicuous in presenting and urging this bill, which we print in full on another page, are the very ones who have opposed the law from start to finish; first, during the initial struggles pertaining to the passage of the bill through the legislature, and next, in various attempts to modify, weaken or emasculate the law through unfriendly amendments proposed from time to time since its passage.

This latest attempt on a part of the members of the New York State Medical Association to disturb the professional peace and quiet that has prevailed for some time past was cunningly planned. Dr. E. D. Ferguson, of Troy, is, it is stated, Governor Black's physician, and it is also given out, on what authority we know not, that should the bill pass the legislature the governor will surely sign it. It is further stated that Dr. Ferguson, who is secretary of

the New York State Medical Association, gave a dinner not long ago, at which Senator Ellsworth, temporary president of the senate, and Mr. Nixon, of Chautauqua, leader of the republican side in the assembly, were present. Next day, by a strange juxtaposition of events, bills were simultaneously introduced in the senate and assembly like the copy on another page. Hence, it has been asserted, probably without any authority in fact, that not only is the governor's sanction given to this measure, but that it has the weighty influence of the leaders of both houses of the legislature. We do not believe, however, that either of these prominent men care a pin's fee for such small legislation and that this adroit attempt to couple their names with it will do more harm than good to the measure under these circumstances. The governor is one of the regents, and he would hardly care to be quoted as endeavoring to promote a measure that might lead to embarrassment.

At the request of Dr. A. Walter Suiter, chairman of the Legislative Committee of the Medical Society of the State of New York, the assembly bill was transferred from the Committee of Ways and Means, of which Mr. Nixon is chairman, to that on Public Health, of which Dr. Murphy is chairman. On Thursday, March 18, 1897, a hearing on the bill was had before the Committee on Judiciary in the Senate and the Public Health Committee of the house sitting in joint session. Senator Lexow presided and Dr. Murphy acted as vice-chairman. The friends of the measure were out in full force, the country contiguous to Albany yielding a liberal attendance in response to a confidential circular from Dr. Ferguson, who acted as party-whip with the title of "chairman of committee." The hearing lasted nearly two hours, and was listened to with dignified patience by the chairman and all the members of both committees. Senator Lexow announced that two speakers from each side would be heard and that the opposition should begin the debate. Drs. A. Walter Suiter, of Herkimer; Edward Clark, Buffalo; Frank Van Fleet, of New York; J. M. Winfield, of Brooklyn, and Seneca D. Powell, of New York, presented the argument for the Medical Society of the State of New York. Drs. Ferguson, Didama and Truax were the chief spokesmen for the State Medical Association.

The arguments may be summarised as follows: The Medical Society of the State of New York contended that since 1806 it had been the representative body of the medical profession, made such

by statutory law, and so acknowledged by all the people ; that it is a delegate body in which the several county medical societies are represented by delegates equal in number to the members of assembly ; that it is a legislative body acting in such capacity for about 6,000 physicians, members of the county medical societies ; that if any counties are unrepresented it is by their own volition ; that practically all physicians in the state exercise, or ought to exercise, a voice in its proceedings ; that in its representative capacity it is required by law to nominate to the regents names from which the latter may select the state board of medical examiners ; that it was chiefly instrumental in obtaining the passage of the law creating this reform, and the state could only recognise the three several state medical societies that are created by law in making up the three several state medical examining boards.

It conceded that the New York State Medical Association was a voluntary body, which, even if incorporated, was not created by statutory law, hence not a part of the legal medical organisation of the state ; that it consisted of between 700 and 800 members, most of whom joined by urgent solicitation on the part of drummers ; that all but 296 of this number were members of the county medical societies, and so exercised a voice in the selection of the board of state medical examiners ; that it is controlled in large part by men who seceded from the medical society of the state of New York because the latter, in 1884, abrogated the code of ethics ; that it is an association organised upon a dogma, and fed by a triviality ; that its members or some of them have opposed the state medical practice act and have been active in endeavoring to secure amendments to it from time to time that would tend to weaken its force or nullify its influence, and that for these and other reasons it ought not to be allowed representation in its separate capacity on the state board of medical examiners.

The New York State Medical Association contended that it was a body loyal to the code of ethics of the American Medical Association, entitled to representation in that body ; that the Medical Society of the State of New York was not entitled to representation in the American Medical Association ; that a former president of the Medical Society of the State of New York had been expelled from the American Medical Association because he remained loyal to the medical society of his own state ; that it is the great apostle of the code of ethics, and that the Medical Society of the State of

New York is a proselyte; that a majority of the members of the county societies are old-codeites; and that for these and other similar reasons it should be given one-half of the emoluments growing out of the organisation and successful management of the State Medical Examining Board, that has been created, fostered and matured under the kindly care and influence of the Medical Society of the State of New York.

During the hearing, members of the committee carefully and intelligently interrogated a number of the speakers, thus manifesting an interest in the controversy and a desire to arrive at the precise facts in the case. We have been careful to enumerate only such essential features as actually took place, leaving inference and conjecture as to the real merits of the case to our readers. We have only this remark in explanation to make—namely, that the president of the Medical Society of the State of New York above referred to was not expelled from the American Medical Association, but that he was deposed from the board of trustees of that body, not because of unprofessional conduct, not because of any violation of any of the canons of ethical propriety, but solely because he was a member of the Medical Society of the State of New York and had had the temerity at one time to accept its presidency.

We challenge no man's views in regard to the so-called code of ethics; we believe in the exercise of the greatest liberality on this and kindred subjects relating to the autonomy of the profession wherein honest men may honestly differ; we expect the same liberal treatment at the hands of our friends who hold views different from our own on this comparatively unimportant subject.

We never introduce a discussion of the code into the columns of the JOURNAL, regarding it as a subject long since disposed of in this state, and believing that a medical magazine should fill its pages with material of scientific and general professional interest, rather than with the discussion of controversial matters that seldom lead to any satisfactory result. In the present instance we have merely chronicled as journalists the circumstances connected with this surprising change of front on the part of the state association, whereby it now seeks to become a part and parcel of the medical examining system, in which homeopaths, eclectics and nonsectarian physicians are all equal before the law and have share and share alike in the reforms and improvements that are developing.

THE New York Physicians' Mutual Aid Association pays its death claims promptly. This fact has recently been exemplified in this city in the payment of \$1,000 to Mrs. Dagenais, on March 17th, whose husband, Dr. A. Dagenais, died March 4, 1897—less than two weeks intervening between the death and the date of the payment of the claim.

Membership in the association is limited to physicians residing in this state. Many prominent physicians of Buffalo are members, and it is desirable that the local membership should be still further increased. Dr. S. A. Dunham, 180 West Chippewa street, is the medical examiner and will gladly furnish any information to physicians who may desire to join the association.

Obituary.

DR. ALPHONSE DAGENAIS, of Buffalo, died at his residence, 473 Virginia street, March 4, 1897, of apoplexy consecutive to Bright's disease, at the age of fifty years. He had been confined to his house for about two months, though his real sickness dated back into the autumn of 1896. Dr. Dagenais was a graduate of the Montreal School of Medicine and Surgery in 1867, and a licentiate of the Medical Society of the State of New York in 1870. He was a member of the College of Physicians and Surgeons of Ontario, of the American Medical Association, of the Medical Society of the County of Erie, of the Buffalo Academy of Medicine and of the Buffalo Medical Union.

At the time of his death he had been engaged in the active pursuit of his profession in this city for twenty-seven years, and succeeded in establishing an extensive and reasonably lucrative practice. He enjoyed the confidence and esteem of a large clientèle, the respect of his friends and neighbors and the friendship of his professional colleagues. Dr. Dagenais was a man of modest demeanor, possessed a most amiable disposition and stood for everything that goes to make up moral and professional rectitude. His loss is keenly felt by numerous patients who were warmly attached to him, by his friends and neighbors whose respect and confidence he enjoyed, by his professional colleagues, and especially by a wife and daughter to whom he was tenderly devoted.



ALPHONSE DAGENAI, M. D.

DR. JAMES B. SAMO, of Buffalo, died at the Church Home in this city, where he had lived for a year or more, on Friday, March 12, 1897, aged 85 years. He was a native of Livingston county, New Jersey, but spent his early life at New York, where he pursued his medical studies with Dr. Hunter, and took his doctorate degree at the College of Physicians and Surgeons in 1832. He came to Buffalo in 1841 and joined the medical society of the county of Erie in 1844; was elected librarian of the society in 1852, holding the office until 1892; was president in 1862. He became a member of the Buffalo medical association upon its organisation in 1845, in which he held several offices and was elected president in 1864. Upon the organisation of the Buffalo general hospital he served for a time upon the medical staff and performed a similar duty at the hospital of the sisters of charity.

In his later years Dr. Samo lived in comparative retirement, though he retained his sprightliness of step and courtliness of manner until the very last. He will be long remembered as one of the solid members of the medical profession, who never lowered its standard and who stood for everything that goes to make up dignity and honor in its ranks. Elsewhere in this edition is recorded the action of his colleagues at a memorial meeting at which Dr. John Hanenstein presided, now the senior member of the profession in Buffalo, and who by singular coincidence joined the Medical Society of the County of Erie in the same year, 1844, as did Dr. Samo.

DR. FREDERIC WILLIAM BARTLETT, of Buffalo, died at his residence in this city, No. 523 Delaware avenue, March 17, 1897, aged 71 years. Dr. Bartlett was born at Kingston, Mass., and his parents, Uriah and Olive (Holmes) Bartlett, were of old pilgrim stock, both having been lineal descendants of Elder William Brewster, Captain Myles Standish and John Alden, of the Mayflower pilgrims. Dr. Bartlett received his preliminary education at Bridgewater, taught school for a number of years, and then went South to take charge of the Lafayette Academy in Georgia. In 1846 he published the *Atlanta Luminary*, which afterward became the *Georgia Tribune*.

The agitation of the slavery question in 1848 led him to return to his native state, where he became one of the publishers of the *Old Colony Reporter* at Brocton, Mass. He began the study of medicine at New York in 1850, received his doctorate degree from

the New York College of Medicine in 1854, and took up his residence at Buffalo in 1855, where he continued to live until his death. He married Adelia, daughter of Dr. James Hunter, of Whitby, Ont., December 28, 1854, who, together with his only son, Dr. G. Hunter Bartlett, survives him.

Dr. Bartlett was elected to membership in the medical society of the county of Erie in 1865 and was president in 1895; president of the Buffalo medical and surgical association in 1884; president of the Buffalo physicians' protective association in 1893-1894; trustee of the Buffalo academy of medicine 1893-1896; consulting physician to the Buffalo hospital sisters of charity 1895, and besides held several offices in nonprofessional societies. The funeral services were conducted by the Rev. J. A. Register, of St. Paul's cathedral, on Friday, March 19th, at which the medical society of the county of Erie attended in a body.

The honorary bearers were Drs. John Cronyn, Herman Mynter, R. E. Campbell, E. C. W. O'Brien, F. S. Crego, J. B. Coakley and Lucien Howe. The active bearers were Drs. John Parmenter, J. N. Goltra, A. L. Benedict, William C. Krauss, John H. Pryor, Allen A. Jones, William H. Thornton and C. R. Jewett. The burial was at Forest Lawn.

In another column the many excellent qualities of this esteemed physician are fittingly enlogised by his colleagues, who were intimately associated with him for many years.

DR. GARDNER CARPENTER CLARKE, of Niagara Falls, died at his residence in that city, March 22, 1897, aged 56 years. He was a native of Rutland, Mass., born March 15, 1841, son of Horace and Mary (Tenny) Clarke. His preliminary education was received at the place of his nativity and he took his doctorate degree from Bowdoin College, Maine. Soon after graduation he entered the military service of the United States as assistant surgeon of the 10th regiment, Mass. volunteers, continuing on the medical staff of the army until the close of the civil war in 1865.

Dr. Clarke came to Niagara Falls in 1865, where he has been engaged in the active practice of his profession until a few days before his death. He married Ella M. Granger, of Pittsfield, Mass., in 1866, and she died in November, 1889. He is survived by three children, one a son, Edward G. Clarke, who is manager of the Ontario silver company, at Muncie, Ind., and two daughters,

Elizabeth G. and Mary G. Clarke, who reside at the family home at Niagara Falls.

Dr. Clarke was recognised as the foremost physician of his region, where he had been a leader in professional and social ranks for many years, advancing from obscurity to renown, and from comparative poverty to wealth and influence. He ministered unto the



GARDNER CARPENTER CLARKE, M. D.

poor and rich alike, always rendering his best service whether the prospective compensation was a liberal fee from a competent purse or a simple "God bless you" from an honest heart. He was well known to all the inhabitants of Niagara Falls as a liberal-minded, large-hearted and able physician, who commanded the respect of his professional colleagues as well as the confidence and esteem of the entire community.

Dr. Clarke took as an associate in 1880 Dr. W. R. Campbell, which partnership continued until they were separated by death. Dr. Campbell's kindly care and faithful ministrations were a tender memory in Dr. Clarke's last days.

The funeral was held at the family residence, Wednesday afternoon, March 24th, at 3.30 o'clock, and was largely attended by relatives, friends, neighbors, citizens and his professional colleagues. The flag over the liberty pole floated at half-mast on the day of the funeral out of respect to Dr. Clarke's memory. The interment was at Oakwood cemetery.

Personal.

DR. J. CHALMERS DaCOSTA, of Philadelphia, was recently elected clinical professor of surgery at Jefferson Medical College. Dr. DaCosta has been connected with the college for many years and has until lately been demonstrator of surgery and chief of the out-patients' department. The new appointment is made in recognition of his long service and valuable contributions to surgical literature.

DR. EDWARD CLARK, of Buffalo, whose practice is limited to diseases of the rectum, has removed his office from 180 West Chip-pewa street to 854 Ellicott Square. Hours: 1-3 P. M. Sundays, by appointment. Telephone, Seneca 1154. His residence is 2268 Main street.

DR. GEORGE F. COTT, of Buffalo, whose practice is limited to diseases of the nose and throat, has removed his office to the Mooney-Brisbane building, corner of Main and Clinton streets, room 531, fifth floor. Hours: 10 A. M.-2 P. M. Telephone, Seneca 1201.

DR. HORACE CLARK, of Buffalo, whose practice is limited to diseases of the nose, throat and ear, has removed his office to 846 Ellicott Square. Hours: 9 A. M.-4 P. M. Telephone, Seneca 92. His residence is No. 21 West North street. Telephone, Bryant 125.

DR. FRANK J. THORNBURY, of Buffalo, whose practice is limited to diseases of the skin, announces his removal from 405 Delaware avenue to The Colonial, 401 Delaware avenue. Hours, 1, and 4 to 6 P. M., Telephone, The Colonial.

DR. WILLIAM C. KRAUSS, of 382 Virginia street, Buffalo, has removed to 371 Delaware avenue. Office hours, 8 to 10 A. M., 2 to 4, and 7 to 8 P. M. Telephone, Tupper 101.

DR. A. B. WILSON, of Buffalo, announces his removal from 345 Virginia street to 78 Fargo avenue. General practice. Telephone, Tupper 425.

Society Meetings.

THE Buffalo Academy of Medicine held meetings during the month of March as follows :

Section on Medicine.—Tuesday evening, March 9th, program : Cystitis, by Dr. W. D. Greene ; discussion opened by Drs. Grosvenor and Hartwig. Report of a case of tumor of frontal lobe of brain, with specimen, by Dr. William C. Krauss.

Quarterly meeting of the academy. Tuesday evening, March 16th.

Section on Pathology provided the following program : Acute diffuse nephritis, with especial reference to the glomerular changes, by Dr. William T. Councilman, professor of pathology in Harvard Medical School.

Section on Obstetrics and Gynecology.—Tuesday evening, March 23d, program : Disorders of menstruation, etiology and pathology, by Dr. Lillian Craig Randall ; Diagnosis and treatment, by Dr. H. D. Ingraham ; The relation of atrophic rhinitis in young women to disorders of menstruation, by Dr. John E. Bacon.

THE Tri-State Medical Society of Iowa, Illinois and Missouri will be held at St. Louis, April 6, 7 and 8, 1897, under the presidency of Dr. A. H. Cordier, of Kansas City. An interesting program has been issued, which includes clinics, by Drs. Joseph Price, of Philadelphia, James T. Whittaker, of Cincinnati, and Dudley S. Reynolds, of Louisville.

THE American Medical Association will hold its fiftieth anniversary meeting at Philadelphia, Tuesday, Wednesday, Thursday and Friday, June 1, 2, 3 and 4, 1897, under the presidency of Dr.

Nicholas Senn, of Chicago. The following addresses will be given : Address in surgery, William W. Keen, Philadelphia ; address in medicine, Austin Flint, New York ; address in state medicine, John B. Hamilton, Chicago. Dr. H. A. Hare, 222 S. 15th street, Philadelphia, is chairman of the committee of arrangements.

THE Missouri State Medical Association will hold its next annual meeting at St. Louis, May 18, 19 and 20, 1897. Courtesies will be exchanged between this association and the Illinois State Medical Society, that will hold its annual meeting at East St. Louis on the same date.

THE Buffalo Sanatory Club, Dr. Henry R. Hopkins, president, held its regular monthly meeting March 11, 1897, at which an interesting discussion was had upon Buffalo's water supply, and a new site for the city water works pumping station was proposed. The next meeting will be held on Thursday, April 8, 1897.

THE Twelfth International Congress will be held at Moscow, August 19 to 26, 1897. Dr. A. Jacobi, 110 W. 34th street, New York, is chairman of the American national committee, to whom inquiries should be addressed.

Book Reviews.

THE DISEASES OF THE MALE URETHRA. By R. W. STEWART, M. D., M. R. C. S., Surgeon to Mercy Hospital, Pittsburg, Pa. One volume of 229 pages, post-octavo, illustrated by numerous wood-engravings. New York : William Wood & Co. 1896.

The neglect of venereal and genito-urinary diseases by the regular profession for many years left an open field for the exploits of the quack, the charlatan and the pretender. A marked change, however, has taken place, so that today these maladies receive special and exclusive attention of eminent and learned medical men. This is indicated by the large volume of transient literature and numerous publications concerning these subjects. One of the latest is the treatise now under consideration. It has been stated that this is the only medical book ever written by a Pittsburg doctor. If this is true, the profession of the Smoky City need not be ashamed of its first-born.

Dr. Stewart, in the introduction, says that the invention of new instruments and the advancement of our knowledge ushered in a new era in urethral pathology and improved methods of treatment. He discusses the acute and chronic inflammation and stricture of

the urethra, in which he also includes the inflammatory diseases of the principal glands communicating with that outlet.

Chapter I. is a clear and concise presentation of the anatomy of the urethra. Fig. 3 is an original schematic diagram illustrating how distension of the bladder opens up the internal vesical sphincter. More or less distension of the bladder, according to its condition, causes rhythmic action of the vesical muscles, resulting in dilatation of the internal sphincter (see Ott's experiments with the bladder of a cat), thus permitting urinary invasion of the vesical neck (often mis-called the prostatic urethra), which arouses the desire for urination.

Chapter II. treats of gonorrhea, in which the author recognises this malady as of very ancient pedigree and as prevalent as vice. The accumulative evidence that the gonococcus of Neiser is the cause of gonorrhea is so convincing that the subject has passed the debatable stage.

The causes of acute urethritis are gonococci, other microörganisms, mechanical and chemical excitants. Gonorrhea is no respecter of persons. It attacks alike the prince and the pauper, the reverend and the roudé. This malady is acquired by sexual contact with a gonorrheic female, yet she may present no signs recognisable by inspection. The female may remain immune and still transmit the disease from a gonorrheic adorer to his follower. The period of incubation is from two to twenty days. Treatment of this malady has not kept pace with its pathology and remains where our fathers left it. In spite of the discovery of its cause, the numberless remedies proposed and the numerous sure and prompt cures exploited by enthusiasts, numerous urethræ continue to weep. We have not yet found the Balm of Gilead for this disease. The pathology as given by Finger is quoted and elaborated.

Dr. Stewart, in the light of pathology, denies the causative relationship of stricture and gleet, both results of granular urethritis, gleet being one of its earliest symptoms, while stricture does not manifest itself for months, and often years, after the inception of the gonorrhea. Guion reports 142 cases of stricture, forty-nine appearing from ten to fifteen years after the gonorrhea. In the experience of the reviewer, gleet may continue for years, characterised by more or less profuse discharges and decided weakness of genital function, without the formation of a stricture of any degree. Granular tissue causes gleet, and its conversion into stricture tissue cures gleet. The only relationship betwixt gleet and stricture is their common origin. One of the characteristics of chronic specific urethritis is its proneness to exacerbations incited by venery, intemperance, over-eating and over-exertion. Venery causes a profuse discharge, which will subside in a few days, with or without treatment. These are the cases cured in a few days by favorite prescriptions and boasting doctors.

The laws formulated by Otis, that the caliber of the urethra bears a definite relationship to the circumference of the penis, and

that stricture is the progenitor of gleet, have done great injury to urethral surgery. Otis claimed that stricture maintained gleet. He did not accuse it of begetting that pervert. "The circumference of the penis is a very variable quantity, even in the same urethra." (?)

Stewart has devised a new urethrometer—an ingenious and practical instrument. The author sums up the treatment of chronic anterior urethritis as follows :

Local treatment should not be attempted during an exacerbation of the inflammation. The urethra should be restored to its normal caliber and resiliency by gradual dilation with sounds. The meatus should be cut, if necessary, but internal urethrotomy should be avoided when possible, on account of its mortality. If the urethra is not too sensitive, local treatment with the endoscope should be employed in conjunction with gradual dilation.

The use of injections is to be governed by the degree of catarrhal inflammation. Gonorrhoeas may marry when the gonococci are not found in the urethral secretion, after repeated examinations. This will occur, according to the researches of Goll, in from five weeks to three years.

Chapter XXI. gives a clear, terse description of the anatomy of the posterior urethra, so compact that it cannot be epitomised.

Acute posterior urethritis is usually a sequence of gonorrhea, and, according to the observation of Heissler in fifty cases, it appeared as follows : First week after infection, 20 per cent.; second, 34 per cent.; third, 14 per cent.; fourth, 29 per cent.

Finger says that it does not come on so early if the acute anterior urethritis is not treated locally. Cowper's glands are analogous to the glands of Bartholin, and their function is sexual. Acute inflammation of Cowper's glands is generally the result of a gonorrhea, and is frequently overlooked or its symptoms attributed to some other cause. Abscesses within these glands should be punctured. Some endoscopists claim to be able to make applications to the excretory duct of these glands.

Chapter XXII. relates to stricture of the urethra, and contains several original cuts, to illustrate urethral anatomy. The author states the following conclusion :

The caliber of the urethra depends on the degree of urethral distension, being approximately uniform if the distending force is slight ; but showing marked irregularities on forced distension, so that no one part can be taken as a criterion of the dimensions of another.

The circumference is variable, and bears no fixed ratio to the urethral lumen.

Treatment of stricture is conservatively and clearly outlined, and preference is given to dilatation instead of urethrotomy. This volume is nicely printed and bound ; its contents are prepared by one who knows whereof he speaks, who is independent in thought, original in design, and who makes his ideas plain without being prolix.

B. H. D.

DISEASES OF THE STOMACH. A Text-Book for Practitioners and Students. By MAX EINHORN, M. D., Instructor in Clinical Medicine at the New York Post-Graduate Medical School and Hospital; Visiting Physician to the German Dispensary. Pp. 496. New York: William Wood & Co. 1896.

A few years ago there was very little literature relating to the subject of which this volume treats outside of a few short paragraphs or brief chapters found in general treatises on the practice of medicine. Now, however, the field is becoming rich in this regard and with the possible danger of its being overworked.

It cannot be denied, however, that there is always room for good literature upon any branch of medicine, and we welcome this book as one of the best of its kind. The author speaks in his preface of some contributions to the advancement of our knowledge on this branch of medicine that have been made by Drs. Charles G. Stockton and Allen A. Jones, of Buffalo—names that are familiar to our readers for their special work in this department of medicine.

In the first chapter the author treats of the anatomy and physiology of the stomach, and in the second passes directly to the consideration and methods of examination. In this, minute directions are given with reference to physical examination, sounds of the stomach, gastroscopy, gastroduaphany, or transillumination of the stomach, the Röntgen rays and examinations of the functions of the stomach. In this latter all known methods are considered and given in considerable detail.

The third chapter takes up diet, and discusses animal, vegetable and liquid foods, the utilisation of foods, diet in health, and diet in acute and chronic diseases of the stomach. There is a field here for much instruction, and the author has improved his opportunity. In this chapter he quotes occasionally from Gilman Thompson's recent work on practical dietetics, that has been noticed in these columns.

In Chapter IV. Einhorn takes up local treatment of the stomach, beginning with lavage, and advancing to the gastric douche and spray, and finally ending with electricity. He makes reference in this chapter to Dr. Stockton's new gastric electrode, and to his paper on Clinical results of gastric faradisation.

Organic diseases, with constant lesions, form the subject of Chapters V., VI., VII. and VIII., in which acute and chronic gastric catarrh, ulcer of the stomach, erosions of the stomach, and cancer of the stomach are considered. It is a melancholy fact that the latter disease is constantly on the increase. It has been shown by Dr. Joseph D. Bryant, of New York, that the death-rate from cancer in that city during the last ten years is 2.17 per cent. of the total mortality, while during the preceding ten years it was only 1.82 per cent. Sadly enough it is a malady that seems to be beyond the domain of cure. Einhorn goes into the subject very fully, and presents whatever is known of scientific value at the present day.

Chapters IX., X. and XI. deal with functional diseases with variable lesions, such as grow out of hypersecretion. Ischochymia, an affection characterised by the constant presence of food in the stomach, is very interestingly considered in Chapter XI. Next to the subject of hyperchlorhydria, this is perhaps the most interesting functional derangement of the gastric economy that is met with in practice, and some of the observations on the subject are quite new.

Abnormal conditions with reference to the size, shape, and position of the stomach are taken up in Chapter XII. ; nervous affections of the stomach are considered in Chapter XIII., necessarily a long chapter ; and the condition of the stomach in diseases of other organs furnishes the topic for the concluding brief chapter.

The book is well indexed, and is also handsomely printed and bound. We shall find ourselves seriously mistaken if this treatise does not become a work of study and frequent reference by all practitioners and teachers of medicine. It is a valuable contribution to the literature of the subject, and stands in marked contrast to many of the works that are foisted on an unwilling profession by eager authors and zealous publishers.

ANOMALIES AND CURIOSITIES OF MEDICINE. Being an encyclopedic collection of rare and extraordinary cases, and of the most striking instances of abnormality in all branches of medicine and surgery, derived from an exhaustive research of medical literature from its origin to the present day, abstracted, classified, annotated and indexed. By GEORGE M. GOULD, A. M., M. D., and WALTER L. PYLE, A. M., M. D. Imperial 8vo, 968 pages, with 295 illustrations in the text and twelve half-tone and colored plates. Philadelphia : W. B. Saunders, 925 Walnut street. 1897.

The curious in literature, as the author of this work very justly remarks, always has a fascination, and we are sure that though the work in the preparation of this book has been enormous, yet it must have been a genuine pleasure for its compilers. It is not a book that comes within the domain of the reviewer in the ordinary sense ; yet, nevertheless, it is one that merits more than ordinary notice.

Heretofore a writer has been obliged to delve through libraries, bookshelves and tomes, in order to obtain information with reference to a given anomaly or "freak" that may be germane to his subject. Now, however, he will be enabled to find these either published in detail or with complete references, in many instances illustrated, within this single volume, and with which the thoughtful men will proceed to ornament his library at once.

There are eighteen chapters with the following titles : Chapter I., Genetic anomalies ; II., Prenatal anomalies ; III., Obstetric anomalies ; IV., Prolificity ; V., Major terata ; VI., Minor terata ; VII., Anomalies of stature, size and development ; VIII., Longevity ; IX., Physiologic and functional anomalies ; X., surgical anomalies of the head and neck ; XI., Surgical anomalies of the extremi-

ties ; XII., Surgical anomalies of the thorax and abdomen ; XIII., Surgical anomalies of the genito-urinary system ; XIV., Miscellaneous surgical anomalies ; XV. Anomalous types and instances of disease ; XVI., Anomalous skin diseases ; XVII., Anomalous nervous and mental diseases ; XVIII., Historic epidemics.

The value of this book in medico-legal cases will necessarily be appreciated by medical witnesses. Again, to the surgeon it will become a constant book of reference, for in it are recorded many surgical anomalies of the entire organism. Not the least curious are some of the recoveries that have followed multiple injuries, or those produced under unusual circumstances, causing great destruction of tissue. Many "freaks" are sketched in this work, and some excellent illustrations of several of those that are familiar to frequenters of the dime museums are here published.

A historical sketch of the noted Siamese twins is given in the book, and reference is made to the fact that the late Dr. William H. Pancost formed one of a committee of the Philadelphia College of Physicians that made a post mortem investigation of the case, which formed the subject of an interesting report to the society.

The obstetrician and gynecologist will be much interested in examining the portions of this book that bear relation especially to their branches of medical science. Some of the most remarkable anomalies, curiosities and freaks in the whole human economy are to be found recorded in the section of the book relating to these subdivisions of medicine.

Finally, it is well printed on good paper, although its size and weight demands a stronger binding than pertains to leather, and we should advise those who purchase the volume to secure the half-morocco covers. The work of the compilers has been most praiseworthy, and the profession of medicine ought to feel indebted to these tireless delvers into the literature of the centuries from which they have rescued and recorded so much of enduring interest. We predict a large sale for this remarkable volume.

THE DISEASES OF INFANCY AND CHILDHOOD. By L. EMMETT HOLT, A. M., M. D., Professor of Diseases of Children in the New York Polyclinic ; Attending Physician to the Babies' Hospital and to the Nursery and Child's Hospital, New York ; Consulting Physician to the New York Infant Asylum and to the Hospital for Ruptured and Crippled. Illustrated with nineteen full-page colored photogravure plates and 185 cuts inserted with the text. New York: D. Appleton & Co., Publishers. 72 Fifth avenue.

Part I. of this work includes chapters on the hygiene and general care of infants and young children, the growth and development of the body and a chapter devoted chiefly to the description of various therapeutic measures, such as stomach-washing, lavage, nasal-syringing, and the like. This chapter is so written and illustrated that various measures are made plain to those who have never had the opportunity of seeing them done.

Part II. comprises ten sections. Section one deals with diseases of the newly-born; section two is entitled Nutrition. Nearly 100 pages are devoted to this subject, and the section is one of great value. Scorbutus and rickets appear here under the head of Diseases due to faulty nutrition.

Diseases of the digestive system properly follow the section on nutrition and naturally occupy a large space. The section devoted to diseases of the respiratory apparatus is of special excellence. Diseases of the circulatory system, of the nervous system, of the blood, lymph nodes and bones fill up the volume to section nine, which is devoted to the specific infectious diseases. Rheumatism and diabetes mellitus occupy the concluding chapters of the book.

It is difficult to say too much in praise of this work. The style is clear and concise; the illustrations new and to the point; the therapeutics rational and simple. The author's large experience has enabled him to produce a book which is, for the most part, original. Representing the experience of one of the foremost teachers of pediatrics in America today, the volume should find its way to many a physician's library.

M. J. F.

BOOKS RECEIVED.

The Diseases of the Stomach. By Dr. C. A. Ewald, Extraordinary Professor of Medicine at the University of Berlin; Director of the Augusta Hospital, etc. Translated and edited, with numerous additions, from the third German edition, by Morris Manges, A. M., M. D., Assistant Visiting Physician to Mount Sinai Hospital; Lecturer on General medicine at the New York Polyclinic, etc. Second revised edition. New York: D. Appleton & Co. 1897.

Lectures on Appendicitis and Notes on Other Subjects. By Robert T. Morris, A. M., M. D., Fellow of the New York Academy of Medicine, American Association of Obstetricians and Gynecologists, American Medical Association; Member of the New York State and County Medical Societies, Society of Alumni of Bellevue Hospital, Linnean Society of Natural History, etc. Second edition, revised and enlarged. With illustrations by Henry Macdonald, M. D. New York: G. P. Putnam's Sons, 27 West Twenty-third street. London: The Knickerbocker Press, 24 Bedford street, Strand. 1897.

How to Live Longer and Why We Do Not Live Longer. By J. R. Hayes, M. D., Medical Examiner Bureau of Pensions, Department of the Interior, Washington, D. C.; Late Surgeon United States Volunteers; Late Medical Director Department of the Potomac, G. A. R. Philadelphia: J. B. Lippincott Co. 1897.

Lectures on Renal and Urinary Diseases. By Robert Saundby, M. D., Edin., F. R. C. P., Lond.; Emeritus Senior President of the Royal Medical Society; Fellow of the Royal Medico-Chirurgical Society; Professor of Medicine in Mason College, Birmingham, etc., etc. With numerous illustrations. Second edition. Small 8vo, pp. xii.—434. Philadelphia: W. B. Saunders. 1897.

A Practical Treatise on Diseases of the Skin. For the use of students and practitioners. By J. Nevins Hyde, A. M., M. D., Professor of Dermatology and Venereal Diseases in Rush Medical College,

Chicago, and Frank H. Montgomery, M. D., Lecturer on Dermatology and Venereal Diseases, Rush Medical College, Chicago. New (fourth) edition. In one octavo volume of 815 pages, with 110 engravings and twelve full-page plates, four of which are colored. Cloth, \$5.25; leather, \$6.25. Philadelphia and New York: Lea Brothers & Co., Publishers. 1897.

Seventeenth Annual Report of the State Board of Health of New York. With fourteen maps of sewer systems and sewage disposal works (in separate volume). Transmitted to the legislature February 17, 1896. Albany: Wynkoop Hallenbeck Crawford Company, State Printers. 1896.

The Year-Book of Treatment for 1897. A critical review for practitioners of medicine and surgery. Crown octavo, 488 pages. Cloth, \$1.50. Philadelphia and New York: Lea Brothers & Co. 1897.

Inebriety: Its Source, Prevention and Cure. By Charles Follen Palmer. Sexto-decimo, pp. 109. Price, 50 cents. New York: Fleming H. Revell Company, 112 Fifth avenue.

The Blind as Seen Through Blind Eyes. By Maurice de la Sizeranne. Authorised translation from the second French edition, by F. Park Lewis, M. D., Member of the Board of Trustees of the New York Institution for the Blind. 12mo. pp. 170. New York: G. P. Putnam's Sons, 27 West Twenty-third street. 1897.

The Retrospect of Practical Medicine and Surgery. Being a half-yearly journal containing a retrospective view of every discovery and practical improvement in the medical sciences. Edited by James Braithwaite, M. D., London, Obstetric Physician and Surgeon to the Leeds General Infirmary, etc., etc. Assisted by E. F. Trevelyan, M. D., London, Assistant Physician to the Leeds General Infirmary. Volume CXIV, January, 1897. New York: G. P. Putnam's Sons, 27 West Twenty-third street.

Hypnotism and its Application to Practical Medicine. By Otto Georg Wetterstrand, M. D., Member of the Society of Swedish Physicians at Stockholm, etc., etc. Authorised translation, by Henrik G. Petersen, M. D. Together with medical letters on hypno-suggestion, etc. Octavo, pp. 183. New York: G. P. Putnam's Sons, 27 West Twenty-third street. 1897.

Transactions of the Eighteenth Annual Meeting of the American Laryngological Association, held in the City of Pittsburg, Pa., May 14, 15 and 16, 1896. Henry L. Swain, M. D., Secretary. New York: D. Appleton & Co. 1897.

Diseases of the Eye and Ophthalmoscopy. A handbook for physicians and students. By A. Eugen Fick, M. D., University of Zurich. Authorised translation by Albert B. Hale, A. B., M. D., one of the Ophthalmic Surgeons to the United Hebrew Charities; Consulting Ophthalmic Surgeon to Charity Hospital, Chicago. Octavo, pp. xvi.—488. With a glossary and 158 illustrations. Price, \$4.50. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1896.

THE *Albany Medical Annals* appeared in the beginning of the year with a new garb and a general improved appearance. Its last edition is a special double number for March and April, 1897, in which it publishes in full a discussion on the relation of impure water to disease, which took place at the annual meeting of the Medical Society of the State of New York, January 26–28, 1897, and which was organised by Dr. Henry Hun, of Albany.

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Original Communications.

THE ANTITOXIN TREATMENT OF DIPHTHERIA IN BUFFALO.¹

By IRVING M. SNOW, M. D., Buffalo, N. Y.,

Clinical professor of diseases of children, University of Buffalo; member American
Pediatric Society; physician to Buffalo Fresh Air Mission Hospital, etc.

THE paper which I am to read to you today deals with the results of the antitoxin treatment of diphtheria in private practice in Buffalo. I was asked by the collective investigations committee of the American Pediatric Society to gather local statistics of the serum treatment of diphtheria. From the circulars of the society I have compiled some interesting statistics, and I am able to show you what the results of the serum treatment of diphtheria are in Buffalo, how our therapeutic success compares with other cities and lastly the effect of the serum treatment in this city upon the general mortality from membranous and diphtheritic croup and diphtheria.

The American Pediatric Society was of the opinion that a much clearer idea of the value of the serum treatment might be obtained by collecting cases seen in private practice—among strong, well-nourished individuals, surrounded by efficient nursing and prompt medical attention—than by massing hospital statistics together, where the subjects are drawn from the poorest and most physically degenerate of our population. After persistent inquiry, I learned that about 300 cases had had the advantage of the serum treatment in private practice in Buffalo up to May 1, 1896. As there annually occurs in this city between 600 and 700 cases of diphtheritic disease I would conclude that in the year ending May 1, 1896, from 35 to 40 per cent. were treated by antitoxin injections. Of some 250

1. Read at the twenty-ninth annual meeting of the Medical Association of Central New York, at Rochester, October 20, 1896.

circulars sent out, only 164 were returned to me correctly filled. Doubtless many interesting cases were omitted from the carelessness or physical indolence of physicians not filling out the blanks.

Among my 164 cases there occurred 29 deaths, a mortality of 17.7 per cent. In only 108 was the diagnosis confirmed by culture. These cases show a mortality of 13 per cent. Of the 56 cases diagnosticated clinically, 15 or 26.6 per cent. died. As the group of cases diagnosticated clinically were far more fatal, as most of them were clearly diphtheria from the description of the location of the membrane and the general symptomatology, I am inclined to accept the entire number of cases as being caused by the Klebs-Löffler bacillus. This mortality of 17.7 per cent. compares very unfavorably with the general statistics of the American Pediatric Society, whose 3,384 cases show a death-rate of only 13 per cent. That their cases were equally severe, or even more malignant, is shown by the fact that only 12.2 per cent. of the Buffalo cases received operative treatment, while 16.7 per cent. of the American Pediatric Society cases were tracheotomised or intubated.

If cases dying within 24 hours after injection be excluded, the American Pediatric Society's returns show a mortality of 8.8 per cent. Our lack of success with the Heil serum might be due (1) to unusual malignancy, which I have shown is not the case by the lower percentage of cases requiring operative treatment in Buffalo; (2) to the injections being given too late, which I also doubt, as 19 out of 28 fatal cases were treated before the close of the 3d day—1st day, 4; 2d day, 8; 3d day, 7; 4th day, 2; after 5 days, 7; (3) to poor serum. The serum used was Behring's, Gronson's or Gibier, all of undoubted purity; (4) insufficient dose, which I am inclined to believe, although the number of antitoxin units given was seldom mentioned.

Comparing the local death-rate, according to age, the local death-rate is always higher.

Years	0-2	2-5	5-10	10-15	15-20	20
American Pediatric Society..	21.7 per ct.	13.7 per ct.	12.2 per ct.	6.8 per ct.	3.6 per ct.	4.2 per ct.
Buffalo.....	33.3 per ct.	18.5 per ct.	16.2 per ct.	14.3 per ct.	0.7 per ct.	9.5 per ct.

The results of intubation with serum treatment are also not as good in Buffalo. Of 18 intubations 6-33.3 died; of 533 cases of intubation with serum treatment from the American Pediatric Society's returns, 25.9 per cent died. Our Buffalo statistics are, however, identical with those of O'Dwyer and McNaughton, who

also lost one-third of their cases, intubated under the new treatment. Yet how noticeable is the advance in therapeutics, when before the serum treatment from 66 to 73 per cent. of cases of diphtheritic laryngitis intubated died. Indeed, the new serum treatment has shown itself to be of extraordinary efficiency in preventing or alleviating diphtheritic laryngeal stenoses.

Of the cases that recovered 8 or 5.9 per cent. suffered from paralysis or neuritis. As the society statistics showed paralytic sequelæ in 9.4 per cent., we may conclude that many cases of post diphtheritic paralysis were not recorded or were overlooked by the physicians making my returns.

Lennox Brown, out of 1,000 cases of diphtheria, found that neuritis or paralysis was present in 14 per cent. Sannè reports 11 per cent. Yet the general opinion is that the new serum treatment of diphtheria will slightly increase the proportion of paralytic sequelæ as many desperate cases survive.

An interesting feature of the new therapeutics is the number of patients who die of late cardiac paralysis; doubtless many would have succumbed earlier from suffocation or from diphtheritic toxemia.

Of my fatal cases, 8 died of sepsis, 8 of cardiac failure, 1 of pneumonia, and 1 of nephritis existing before the serum was injected. No case of nephritis or of sudden death followed the antitoxin injections. Among the 135 cases of diphtheria that survived were 3 cases of pneumonia, 3 of nephritis, 6 of sepsis, 2 of heart failure.

Broncho-pneumonia, so fatal a complication of diphtheria, is strikingly absent from the new statistics. Possibly the rarity of broncho-pneumonia, commonly due to a secondary infection of the streptococcus pyogenes, may be owing to the fact that the curative value of the serum is especially great in laryngeal diphtheria. The remedy lessens the frequency and severity of the laryngeal inflammation. The larynx is the principal avenue of infection in diphtheritic broncho-pneumonia.

It would be interesting to compare the results of the antitoxin method with those treated by the older methods in this city. Unfortunately there is no date available for this purpose. In the District of Columbia, Dr. Samuel S. Adams was able to show a noticeable difference in favor of antitoxin.

One hundred and thirty-five cases were treated without serum, average age, 5.96 years; deaths, 34.8 per cent; 176 cases treated

with antitoxin injections, average age, 6.51, percentage of deaths, 14.77 per cent., a difference in favor of antitoxin of 20.04 per cent.

Has the extensive use of antitoxin actually lessened the gross number of deaths from diphtheritic diseases in Buffalo? No.

	Cases of Diphtheria Reported.	Deaths from Diphtheria— Membranous and Diphtheritic Croup.
First 6 Months, 1894.....	173	60
“ 1895.....	313	90
“ 1896.....	419	104

During this period the general death-rate has steadily diminished.

	Deaths from Respiratory Disease.
First 6 Months of 1894.....	404
“ 1895.....	286
“ 1896.....	354

		Proportion from Diphtheritic Disease.
Total number of deaths first half, 1894.....	2,478	2.4 per cent.
“ “ “ 1895.....	2,295	3.9 “
“ “ “ 1896.....	1,960	5.3 “

There has, therefore, been not only a larger number of deaths from diphtheritic disease during the period quoted, but the proportion of deaths caused by the Klebs-Löffler bacillus is increasingly great. This, I believe, is due to the steady spread of the disease throughout the city, to its assuming an endemic character and not to the failure of the antitoxin treatment.

The average mortality from diphtheria in American cities was from 30 to 40 per cent. The serum treatment has reduced it to 17.7 in Buffalo, and to 13 per cent. for the majority of American communities. Again, consider the very favorable showing of our intubation cases, 66.6 per cent. of recoveries from the worst type of diphtheria. Most of the physicians (40) returning the committee blanks were enthusiastic in praise of the curative value of the Heil serum. In 21 of the 135 recoveries, the physicians declare that the remedy was the means of saving life.

It is my opinion that at least in children the dose of antitoxin injected is usually too small. The advice of the committee of the American Pediatric Society is to give the serum early in a clinical diagnosis and not to wait for a bacteriological culture.

For a child over two years with laryngeal stenosis, or with threatening symptoms, 1,500 to 2,000 units for the first injection,

to be repeated in 18 to 24 hours, if no improvement ; a third dose after a similar interval if necessary.

For severe cases in children under two and mild ones over two, 1,000 units, repeat if necessary; second dose generally not required. Dosage to be estimated in antitoxin units and not in amount of serum.

476 FRANKLIN STREET.

EARACHE: ITS SIGNIFICANCE AND EARLY MANAGEMENT.¹

By FRANK WHITEHILL HINKEL, M. D., Buffalo, N. Y.,

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PAIN is so early prominent and constant a symptom in acute catarrhal inflammation of the middle ear that it is regarded by laymen as the disease itself. Common usage of the term "earache" bears witness to this.

It is the purpose of this paper to recall anew to your attention that "earache" has grave significance, involving possible lifelong disability of one of our most important senses, and more frequently than is appreciated, issuing lesions that menace life itself. Especially would I impress upon you that, except ear disease occur as a complication, these serious sequences can be prevented almost invariably if proper treatment be rigidly and accurately installed in the very first stage of the attack. It is important that the family physician—the general practitioner—have clear and positive ideas of the conditions involved and the responsibility that devolves upon him. For these cases are seen, while abortion is yet possible, far oftener by him than by the expert, whose services are usually sought when the disease is fully established. This particularly applies to practice in the country, where early consultation is difficult, often impossible. And, unfortunately, the management of these cases by the family physician often lacks in decision and accuracy. Uncleanly and useless local applications are employed, the real indications are unfulfilled, and the golden opportunity for abortive treatment is lost. For this reason, this simple though important theme is presented before you, and with the greater interest because the proper early management of earache does not involve practised technique nor elaborate apparatus.

By far the greater number of cases of earache occur in childhood, when fortunately the recuperative powers are greatest. If

1. Read before the Medical Society of the County of Erie, January 12, 1897.

proper and sufficiently early treatment be given these cases, whether of the occasional or recurring type, little or no permanent disability will follow. How weighty a responsibility lies on the attendant in these cases, and how little tendency there is to entire restoration of function in cases entrusted solely or mainly to their natural course, are shown by Hartman's estimate that one in four adults has impairment of hearing in one or both ears. Certainly your observations, like my own, show the great prevalence of defective hearing; and when we remember that considerable deafness may exist in one ear unknown to the individual, if the other ear have normal acuteness, it is easy to appreciate how many cases escape attention. Again, the mortality from cerebral disease, secondary to acute or chronic purulent otitis, is not inconsiderable. It has been estimated at 3-10 of 1 per mille of all deaths. Some insurance companies regard a chronic purulent otitis as a cause for rejection as a bad risk.

In view of the frequency and gravity of these sequences of neglected inflammations of the middle ear, and remembering the almost unvarying recovery of function (in acute cases not complicating the fevers) under correct treatment—if that treatment be given *early* in the attack—no further argument can be necessary to urge the importance of rendering this aid promptly and efficiently.

In earaches that occur but once in the individual the significance as to etiology is neither constant nor often of much importance. It is otherwise, however, where the attacks recur with each winter's stormy weather, or with every "cold." Here the predisposing cause must be removed, if treatment is to avail to preserve the hearing. The offending lesion in these cases will be found to be almost invariably a hypertrophy of the lymphoid tissues that encircle the upper air and food tracts. So constant is the relationship between "adenoids" and recurring earaches in children that the discovery of the one should always lead to investigation of the other. Earaches in childhood should always suggest a careful examination of the naso-pharynx. It is surprising in how young a child a visual examination of the vault of the pharynx can be made with the mirror. When that fails, for any reason, a digital exploration can always be made. If the examining finger have a practised touch, much can be learned in this way. Remember that the faucial tonsils may be entirely normal in size and appearance, while the pharyngeal tonsil may be considerably diseased and hypertrophied. Remember, also, that this lymphoid hypertrophy

in the naso-pharynx may be too slight to cause the typical symptoms of "adenoids," such as mouth-breathing, and the like, and yet by its location induce repeated inflammations of the middle ear.

Hypertrophy and inflammation of the tonsils, both faucial and pharyngeal, act deleteriously upon the ear in two ways—first, by extension from them to the middle ear through the Eustachian tube of congestion or of infectious inflammation; and, second, by mechanical interference with the action of the soft palate. The diaphragm-like sheet of muscular tissue, that we call the soft palate, is inserted into the membranous and cartilaginous portions of the Eustachian tube, as well as to the petrous portion of the temporal bone. Like other structures of the upper air and food tract it has varying functions and performs a part in several special mechanisms. It is thus a part of the mechanism of the middle ear, and is the means of ventilating and equalising air pressure in that important chamber. Every time we swallow or speak, the contractions of the soft palate draw upon parts of the tubes and open their usually closed lumen to the passage in or out of air. If the palatal action be hampered by swollen tonsils, or adenoid hypertrophies, or if these adenoids themselves so press upon the Eustachian orifices as to prevent their dilating, the ear function is interfered with and a state of deranged tension of the ossicles and drum membrane is induced, with more or less passive congestion of the mucous membrane of the tympanum. Acute inflammations readily occur, causing the familiar earaches. The inflammation never entirely subsides and the hearing sooner or later suffers. It is plain that no treatment will be successful that does not restore freedom of action to the soft palate and diminish the extent and frequency of inflammatory attacks in the naso-pharynx. I will not enlarge upon the treatment of lymphoid hypertrophy of the pharynx. Thorough removal of the hypertrophied tissue alone can be relied upon to restore the much-needed function of the soft palate and to relieve the engorgement of the middle ear. If the operation be done early the result is uniformly excellent. If it be deferred, in the hope that the child may "outgrow" its earaches, more or less impairment of hearing usually results, despite later treatment—even complete removal of the offending tissues, or the gradual atrophy of the hypertrophied structures in the course of time. To remove the tonsils alone is insufficient. The naso-pharynx and especially the fossa of Rosenmüller should be care-

fully cleaned of all excess of lymphoid structure under general anesthesia. I wish to state emphatically that the earlier this is done the better the result as to the preservation of normal hearing in adult life. I believe a large part of the many cases of incurable deafness of one or both ears we meet with in adults is directly due to neglect of the diseased condition I have just described. It is not safe to let the child "outgrow" its earaches.

So much for the significance of recurrent earache and its preventive treatment. Now how shall the family physician manage a case of earache during the attack?

You will recall that the tympanum is a small and narrow recess deep in the temporal bone, within the base of the pars petrosa. Its walls are bony and unyielding save the outer, which is largely membranous. At its lower anterior angle the Eustachian tube, closed when at rest or if inflamed, leads inward and a little downward to the naso-pharynx. Above and behind, it communicates through the antrum with the honeycomb of mastoid cells. Its roof, thin as a finger-nail and not infrequently dehiscent, alone separates it from the cranial cavity. You can readily understand how retention in this inelastic space of inflammatory products quickly causes exquisite pain, and how easily these same products, if the process continue unrelieved, may find their way into the mastoid cells or into the cranium itself—catastrophies to be prevented if possible.

Rich in nervous associations and blood-supply this region is readily influenced through the general circulation and nervous system, if inflammatory changes be not too advanced. The first indication, therefore, in the early stage of an earache, is to procure quiet, physical and mental. Place the patient at once in bed and keep him there, if a child, forty-eight hours at least. Many relapses occur from allowing a restless child to play about the house the next day after an earache. Let a hot foot-bath be given under the bed clothes for its relaxing and revulsive effect.

If a child from three to eight years of age, give morphia sulphate, gr. 1-16 to 1-10, by the mouth. Let the dose be large enough to be effective and given hypodermatically in older patients. The result sought is not only relief of pain, but to affect the circulation locally and in general. The opiate may be repeated if the pain recur or be not controlled, but it should not be continued the second day. There are then surgical means to be used to relieve pain, and at the same time to relieve tension in the tympanum and

lessen the danger of mastoid or brain complications. Prolonged use of opium may mask serious symptoms until fatal mischief be done.

If the bowels are loaded or the tongue indicates it, give calomel and a saline in robust cases. Let a saline, or other laxative, be given at least the next day after the morphia has been used. For two days let the patient have only soft food, milk toast, bread and milk, eggs, and the like, and light diet. The act of chewing tends to congest the ear and throat, and if solid food be masticated it may induce a return of pain. See that no erupting, or decayed, or ulcerated teeth are exciting inflammation in the ear. If present give them prompt attention. Let the room be kept at about 68 degrees and the air sweet and somewhat humid. This last is important where a furnace or natural gas supplies the heated air.

The local treatment of the early stage of acute catarrhal otitis is simple but important. It consists of measures to apply warmth to the parts and to prevent sudden alternations of temperature. I prefer, as a rule, dry hot applications to moist ones. Let a large pad of wool or absorbent cotton be heated quite hot and applied over the entire affected side of the head. It can be held in place by a kerchief. In young children the pad can be stitched inside a little cap and effectively held in place. This should be worn during the time the patient is confined to bed.

Occasionally, if the pain continue despite the treatment already suggested, combined heat and moisture give relief. This is best applied by a very gentle stream from a fountain syringe. A quart at least of very hot water should pass steadily and slowly into the auditory canal to the fundus and then escape into a receptacle held below the ear. Some care is needed to apply this treatment properly. If it relieves pain it may be repeated as often as indicated.

Avoid the use of all applications about the auricle or within the auditory canal that may ferment or become rancid, such as sweet oil, oil and laudanum, and poultices of any kind. Such applications enormously increase the probability of serious infection of the tympanum from the auditory canal if the drum membrane rupture spontaneously or be incised to evacuate retained secretion.

Instillations of laudanum, morphine solutions, or cocaine solutions are of doubtful utility and they may be positively injurious in case of rupture of the drum-head. Their absorption is more

than doubtful and their virtue consists largely in the warmth they convey.

There is frequently considerable naso-pharyngeal catarrh in these cases. Avoid the use of cleansing sprays or douches the first day or two of the attack. The congestion of the ear is very easily increased by them. A half of 1 per cent. solution of cocaine muriate in distilled water may be used if there be, as there often is, much nasal stenosis. This may be followed to advantage by a 2 per cent. solution of menthol in liquid alboline, sprayed slightly into nose and throat. Warn the patient against blowing the nose violently. Carelessness in this regard may cause a recurrence of the pain. Do not inflate the tympanum at this time by any method. That should be done only under expert advice.

If pain continues unabated or increased on the second day, do not trust longer to general medication or inexact applications, but call in an expert. The ear should then have a thorough skilful examination. Evacuation of the tympanic cavity by free incision of the drum membrane may be needed; and if promptly done, may prevent a prolonged purulent inflammation, with all the dangers it entails to hearing and even life itself. Do not trust to spontaneous rupture, or follow expectant treatment. It would be criminal negligence.

In summary I beg to call your attention to the following points:

1. Earache, however slight, may signify disease that neglected may terminate in loss of hearing, even of life itself.

2. Recurring earache in children almost always is associated with lymphoid hypertrophy of the pharynx, depends on it, and permanent impairment of the function of the ear is prevented only by early surgical treatment of the "adenoids."

3. Acute inflammation of the middle ear may be frequently aborted if proper treatment—mostly of a general sedative character—be administered early in the attack and with precision.

4. If relief be not obtained by the second day an expert examination of the ear should be made and proper surgical treatment applied to relieve intratympanic pressure and possible involvement of the mastoid cells or intracranial structures. Failure at this stage to obtain as exact knowledge as possible of the condition of the middle ear is criminal negligence.

SHOULD THE MARRIAGE CONTRACT BE LIMITED BY LAW ?¹

By E. T. RULISON, M. D., Buffalo, N. Y.

“THERE is a destiny made for a man by his ancestors, and no one can elude the tyranny of his organisation.” These were the words of Maudsley, and truer, more impressive ones were never uttered. In taking the affirmative side of this question, Should the marriage contract be limited by law ? I do so realising fully that public sentiment, formed and fostered by writers of poetry and fiction, would be shocked to have such a measure proposed for legal enactment. Still I know that in the every-day experience of the physician are to be found many reasons why it should be. The history of marriage is very obscure. It is supposed to date back to the time when a virtuous woman in the tribe to which she belonged was not esteemed or looked upon with favor, but when captured by a man of a neighboring tribe was expected and required to be his property only. In time, this requirement or contract, called marriage, was adopted by the men and women of the same tribe. The oracles, or priests, assumed or usurped the office of performing the marriage ceremony, which office they have continued to hold, with unsurpassed regularity, down to the present time, notwithstanding the many changes in administration and forms of government.

There is really no law regarding the contract of marriage—the consent of the contracting parties alone being sufficient to make it lawful. The marriages prohibited by the Jewish canonical law may be divided into the following : (1) Prohibitions on account of consanguinity and affinity ; (2) prohibitions in consideration of chastity ; (3) prohibitions for religious and other reasons. These reasons are uncertainty of parentage, pregnancy, mourning, consent of parties, mental capacity and legal age. Idiocy and lunacy, coming under the head of mental capacity, are prohibited ; so are spadones, if violently or artificially emasculated, but if this defect be a natural one it does not preclude the contract of a legal marriage. In regard to defects in consequence of disease, or the disease itself, there is a difference of opinion among the rabbinical authorities, but what they are I have been unable to learn. The intermarriage of Jews with Gentiles is not in accordance with rabbinical law, but when the ceremony is performed by civil authorities the church

1. Read at the Buffalo Academy of Medicine, February 9, 1897.

recognises the contract as legal. This law is rarely infracted, which accounts for the marked differences that exist between the two races.

The reasons for having some law regulating marriages are many, no matter how difficult it might be to have such a law enacted, and especially enforced. Parentage is too serious a question to leave to the hap-hazard way now prevalent regarding it. It is not necessary to discuss at length the question of heredity. Dr. Strahan says, "It is that mysterious influence which foreordains that the offspring shall be in the likeness of its parents." If there be any present who have any doubts regarding the transmission of pathological as well as physiological and psychological traits, I would respectfully refer them to Ribot's work on Heredity. When one comes to study statistics concerning the increasing prevalence of crime, insanity and idiocy, and finds that it is due largely to our careless way of allowing like to beget like, he may well feel alarmed, for he cannot help seeing what the ultimate result will be unless some radical measure be adopted to prevent. Dr. Maudsley observes :

Because it has been the fashion to look upon an individual as if he were the product of an independent creative act and a self-sufficient being—because men commonly look not beyond a single link in the chain of causation—therefore, it has been impossible hitherto to uproot the erroneous notion, explicitly declared or implicitly held, that each one is endowed by nature with a certain fixed mental potentiality of uniform character. But now that observation reveals more and more clearly every day how much the capacity and character, mental and bodily, of the individual is dependent upon his ancestral antecedents, it is impossible to deny that a man may suffer irremediable ill through the misfortune of bad descent. Each one is a link in the chain of organic beings, a physical consequent of physical antecedents ; the idiot is not an accident, nor the irreclaimable criminal an unaccountable casualty.

It seems strange, when this great fundamental law of hereditary transmission has been understood for years, and has been applied to animals, (as well as to the human race, when dollars and cents were concerned,) yet it is ignored entirely when we see children begotten every year with pedigrees which would send our domestic animals to the abattoir or place them under the ban of a health commissioner. Darwin says :

Man scans with scrupulous care the character and pedigree of his horses, cattle and dogs before he matches them, but when he comes to

his own marriage he rarely or never takes any such care. He is impelled by nearly the same motives as the lower animals when they are left to their own free choice, though he is so far superior to them that he highly values mental charms and virtues. On the other hand, he is strongly attracted by mere wealth or rank. Yet he might by selection do something, not only for the bodily constitution and frame of his offspring, but for their intellectual and moral qualities. Both sexes ought to refrain from marriage if they are in any marked degree inferior in body or mind ; but such hopes are Utopian, and will never be even partially realised until the laws of inheritance are thoroughly understood. Every one does good service who aids toward this end. When the principles of breeding and inheritance are better understood, we shall not hear ignorant members of our legislature rejecting with scorn a plan for ascertaining whether or not consanguineous marriages are injurious to man.

It was a well-known principle among the Greeks to select their wives with a view to the health and vigor of their children. The Grecian poet, Theogius, who lived 550 B. C., clearly saw the importance of proper sexual selection when he wrote as follows :

With kine and horses, Kernus, we proceed
 By reasonable rules, and choose a breed
 For profit and increase, at any price :
 Of a sound stock, without defect or vice,
 But in the daily matches that we make,
 The price is everything : for money's sake,
 Men marry women ; women are in marriage given ;
 The churl or ruffian, that in wealth has thriven,
 May match his offspring with the proudest race ;
 Thus everything is mixed, noble and base !
 If then in outward manner, form and mind,
 You find us a degraded, motley kind,
 Wonder no more, my friend, the cause is plain,
 And to lament the consequence is vain.

One of the greatest obstacles to our reaching a more ideal civilisation is the fact that the low, diseased and vicious marry at an early age and beget many offspring, whilst the careful and virtuous marry later in life and have comparatively few children. Mr. Greg says :

The careless, squalid, unaspiring Irishman multiplies like rabbits ; the frugal, foreseeing, self-respecting, ambitious Scot, stern in his morality, spiritual in his faith, sagacious and disciplined in his intelligence, passes his best years in struggle and in celibacy, marries late

and leaves few behind him. Given a land originally peopled by a thousand Saxons and a thousand Celts and in a dozen generations five-sixths of the population would be Celts, but five-sixths of the property, of the power of the intellect would belong to the one-sixth of the Saxons that remained. In the eternal struggle for existence it would be the inferior and less favored race that had prevailed—and prevailed by virtue, not of its good qualities, but of its faults.

It has been the history of all newly-discovered countries that progress has been most rapid on account of the “daring and persistent energy” of the settlers. They are generally composed of the most healthy and robust members of the country from which they emigrated, and until the succeeding generations are weakened by vice, intemperance and disease, there follow the natural results of proper selection. With savages, the weak in mind and body are soon eliminated, and those who survive exhibit increased, vigorous health. We, as a highly civilised nation, do all in our power to prevent this elimination by building asylums and hospitals, and our medical men exert themselves to the very last to prolong life, even in fatal diseases. In order that a nation may grow stronger, means must be provided for the survival of the strongest only. A warlike nation is weakened as much by the feeble men who remain at home and propagate their kind as by the loss of the strongest in battle.

Interesting, though startling, is the fact that the increase of crime during the decade ending 1890, over that ending 1880, is from 1 to 299 per cent., and is to be seen in nearly every state and territory in the union. The number of prisoners in the United States in 1890 was 82,329, of which 901 were insane. The number of inmates of juvenile reformatories the same year was 14,846. The number of inmates of benevolent institutions, public and private, June 1, 1890, (not including hospitals for the insane, schools for the deaf and blind, or asylums for the feeble-minded,) was 112,263, of which 55,316 were males and 56,947 were females. The number of paupers was 73,045. The number of divorces in 1867 was 9,937 ; in 1886, 25,535, or a total of 328,716 in twenty years, which shows a greater percentage of increase than the increase of population. The expenditures for the care of the insane in the state of New York amount to \$4,000,000 annually, a sum larger than for any other department.

The criminal expense of this country is enormous. Recent statistics show that there are 52 penitentiaries in this country and

over 17,000 jails. The first cost of these buildings was \$500,000,000. The annual expense of these institutions is \$100,000,000, and during the last year, for which statistics have been prepared, 900,000 people were incarcerated.

Erie county expended, during the last year, for the insane, \$259,782.41 ; schools, \$241,597.64.

These are a few statistics that go to show the prevalence and rapid increase of unfavorable social conditions. To simply give the names of inebriety, tuberculosis, syphilis, idiocy and epilepsy is sufficient to remind us of the fact that the burden we are carrying is almost overwhelming. Then, the first duty of a state or nation is, or should be, to protect the lives of coming generations, as well as the lives and property of those now living. It should also be its duty to teach its people to know how to obtain and preserve health, and compel the healthy ones to protect their offspring, by marrying the strong and vigorous only. In other words, "you who were fortunately born must be the keeper of your dangerous though perhaps unfortunate brother man, or he will overpower and ruin you." The *Express* of August 6, 1896, contained the following, which shows how voluminously (?) our editors will sometimes treat an ordinary (?) topic :

The man who killed his wife and children in Kentucky this week came of a feeble-minded family. Yet a government which disdains to be paternal permitted him to marry and raise a family of his own.

The law protects us, or rather commands us to keep away from the contagion of scarlet fever and diphtheria, and compels us to immunise ourselves against the ravages of small-pox ; and do we complain? Yes, there are a few who do, but they are the ones that always object to anything that is proposed for the general good. Education will not protect, for we find our best educated people are oftentimes the ones who display the most ignorance regarding their physical wellbeing. Ministers of the gospel, who are admittedly among our most learned men, generally exhibit more ignorance in regard to medicine and the physical condition of the women they marry than any other class. The introduction of the Jewish law of marriage and divorce reads as follows :

Marriage is the most important and sacred of all domestic relations. It is the origin of all other relations of life, and forms the foundation of human society. Besides, it is a relation in which man's happiness for life is materially involved, and which serves to protect and promote moral purity.

A race remains characteristic and distinctive until immigration or a mixing with some other race causes it to change. Owing to the stringent canonical marriage laws of the Jews, backed by the almost unanimous sentiment of the people, it is seldom that a Jew is united in marriage to a Gentile. As a result, he remains a Jew no matter to what nation he may belong. He has endured many and lasting persecutions, but owing to the great care he exercises in regard to marriage, his progress has been constant and wonderful, and he now occupies the most conspicuous places, commercially, politically and intellectually.

The advancement of civilisation is a most difficult problem when there is such a constant struggle being made by the ignorant and vicious to lower it. Marriage certainly should not be thought of by parties who can bring their children nothing but abject poverty, for poverty is a great evil that tends to perpetuate itself and leads to the most reckless and demoralising marital relations. This may appear to be going a little too far, to deny the poor man the privilege of having a so-called home of his own, but I do not mean the poor man who has it in him to work and gradually improve his condition, but the one who is the natural mendicant, the one who would feel decidedly uncomfortable if he had a nickel ahead. This class of people, who revel in poverty and beget a numerous progeny, should be controlled as thoroughly as the diseased and the criminals. Imbeciles, confirmed epileptics and drunkards, those who have been insane more than once, habitual criminals and paupers should all be denied the right of procreation. In preventing those not qualified to marry, it should be remembered that if it prove a hardship to a few who would undoubtedly have a strong desire to do so, the greatest good to the greatest number must always be considered. The child takes his life from his parents; it is his heritage, his estate; he cannot pass it over to some one else; he can only lay it down when the angel of death comes to bear it away. The responsibility of such a condition is to be exceeded by one only, and that of the one who brought it into being. While the consent of the parties is universally deemed necessary to make the contract of marriage legal, this seems to be the only safeguard one has to protect him from serious consequences, the law cannot redress or remedy. Of course, there are plenty of laws for all the incidents arising from the relationship. There are also laws sufficient to protect your life and property, but none to protect you from a fate

that may be worse than the loss of either or both. Just think of it! You who have sons and daughters blessed with a happy, healthy ancestry, do you ever think of the possible (I might say probable) fate that awaits them by marrying into a family whose ancestry is notoriously bad? I am afraid not. This is usually the last consideration thought of, when it should be the first. Wealth and social position, no one will deny, are important factors in making up the sum total of domestic happiness, but how insignificant when compared with that great servitor of human happiness—*health*. Can a more discontented, unhappy and woeful picture of life be drawn than that of a young man, rich in the endowment of health and full of the life and ambition that attend such a condition, wedded to a woman who puts upon his children the stamp of ill-health and makes of his life a dismal failure? Such a union seems more terrible to me, and is fraught with more evil consequences, than that of any other contract which can be made.

Ingersoll says: "The true family is the result of the true marriage, and the institution of the family should, above all things, be preserved." Among the many good things to be found in Bellamy's *Looking Backward* is the following: "Over the unborn our power is that of God and our responsibility like His toward us. As we acquit ourselves toward them, so let Him deal with us." It has been said that "The lives of most men are in their own hands," but a greater truth is expressed when we say that the lives of future generations are in the hands of those now living. The physical as well as mental impress we make upon those who are to follow can not be over-estimated. If we are to be left perfectly free to follow out the impulse of passion, or the ambitious promptings to attain wealth or social position through the matrimonial gate, regardless of physical consequences, then I can see no relief for the great majority of our people, but perpetual ill-health and misery. Our schools, pulpits and periodicals might enlighten our boys and girls, but will they do it? And would it do any particular good if they did? I imagine the same physical misalliances would be formed as heretofore. Social misalliances are sometimes made, but the parties to them always know they are breaking the unwritten law of social ethics. It may seem hard to some not to be allowed to traverse the road the spirit of love and poetry direct; but, when a social law is such a perfect barrier, why should not a carefully framed statute, calculated to bestow constantly increasing blessings, be made and executed?

Throughout Brazil there prevails a remarkable and self-imposed law in relation to matrimony. It is recognised among all the higher classes. The man who is about to marry is required to furnish a certificate from one or more physicians that he is free from disease of a certain character and that he is free also from all signs of any of the diseases which are liable to be transmitted to the offspring. Not only that, but the physicians consulted must testify that, as far as they can learn, there exists no reason to believe that the union will be other than in accord with the laws of sanitation. Such a self-imposed family law is certainly very creditable to our sister republic, and is a most worthy example for us to follow until we can have something better. Everywhere we see the hand of improvement, and many of the blessings and luxuries we enjoy today were not even in dreamland fifty, twenty-five or even five years ago. The march of civilisation was never so rapid as now, and the time must soon come when our enlightened nation will understand and fully appreciate the danger arising from the prudish manner in which we treat the marriage question, and will correct many of its abuses.

As an embodiment of an idea, which can be changed as experience may dictate, I would suggest that the state (or, better, the nation,) appoint a medical staff of three experts for every county in the state, to examine all boys and girls at the age of from twelve to fifteen, relative to their physical condition and family history, and a record be kept of all applicants. I would have three distinct classes. Class A—Those being physically and mentally sound, of good habits, and having no history of any hereditary disease (not mentioned in this paper as prohibitory to marriage), for at least three preceding generations. Class B—Same qualifications as in Class A, but family history to descend to grandparents only. Class C must necessarily be applied to all those not included in Classes A and B. Certificates for Classes A and B should be granted by the medical examiners. No one should be allowed to marry outside of the class to which he or she belongs, and those having certificates should be required, when about to marry, to make an affidavit that they are free from all communicable diseases and are temperate in their habits. This would tend to make Classes A and B constantly stronger and better, and a growing desire to be so. Class C, at first, would greatly predominate, but a few generations would suffice to make it the smallest. In those possessing hereditary taints, and deprived of the privilege of

inating with the healthy, nature soon solves the problem by eliminating them. Heretofore the surplus population has been taken care of by wars and epidemics, but now, as the tendency of our advanced civilisation is to arbitration and sanitation, the population of the more enlightened nations must necessarily increase more rapidly than ever before. As society is at present constituted and controlled, the unhealthy and vicious class is increasing more rapidly than the more desirable one. In the days of Malthus the danger lay in the population increasing more rapidly than the means of subsistence, which meant a displacement of the weaker and more unfortunate members of society. Now this danger no longer threatens, but a greater one in the survival and overwhelming increase of imperfect physical and mental beings. By laws carefully made and judiciously administered, society can be gradually improved and danger averted.

37 ELMWOOD AVENUE.

SHOULD OPTICIANS PRACTISE MEDICINE?¹

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TO PRACTISE medicine is to give one's time, more or less, to the examination and treatment of deformities, diseases or injuries. The limitation or narrowing of these to a certain class of abnormalities or to certain organs does not change the nature of the practice. When an optician "tests" the eyes, he does what the physician does in any abnormal condition: he examines the case. When he prescribes glasses, he does what the physician does: he makes a diagnosis and prescribes a remedy, and often with the avowed purpose of relieving headaches or other diseases.

Outside of presbyopia (old-age sight), every case requiring glasses has some condition of the eyes that is wrong. If it is a refractive error, there is, essentially, a deformity. If it is impaired vision, there is something abnormal either in the refraction or in the structures of the eye. If it is headache or other neurosis, this is in itself a disease. Whoever undertakes to adjust glasses, therefore, is dealing with abnormal conditions, and is seeking to relieve distress. This is all there is to the practice of medicine, and this is what the "refracting" optician is engaged in.

¹. Read by title at the meeting of the Central New York Medical Association, Rochester, October 20, 1896.

Those abnormalities of the eye and their reflexes which suggest glasses as a remedy are most varied and complex. To determine their nature and trace their relations can be done only by one versed in physics, anatomy, physiology and pathology, and even then obstacles are often met with which are well-nigh insurmountable. A diagnosis being arrived at, the proper remedy can only be suggested by one whose therapeutics include any agency applicable to the ascertained condition. This may be glasses, or it may be hygiene, or it may be medicine, or it may be an operation.

Indeed, the subjects of refractive errors and muscular defects, in their whole range, both in examination and correction, are medical in the most technical and profound sense. No subject in medicine has been so diligently studied, and has yielded such fruitful results, as these; but physicians, and physicians alone, have done the work. The attempt to single out these conditions, and set them apart as a little kingdom by themselves, is irrational and absolutely without justification.

The optician who is not a physician may have a good knowledge of optics and lenses; but the eye is more than an optical instrument with fixed lenses and mathematical curves and surfaces, to be readjusted or neutralised. It is a living organ, subject to many diseases itself, and so intimately related to the system at large that its conditions not only affect other parts by reflex action, but it, in turn, is affected by influences and diseases originating in other organs. Only the physician can understand these and deal with them properly. The optician may have some notions of the local anatomy, physiology and pathology of the eye, but the vagueness and limitation in which he holds them render them useless, or perhaps dangerous, if he undertakes to apply them. Not possessing the requisite knowledge, he may fail to recognise a disease of the eye which, if neglected, may lead to blindness. He may not discover symptoms in the eye which, if seen by a physician, would reveal the presence of a remote or constitutional disease, the early treatment of which would save the individual's life. If he prescribes, he may not fully meet the requirements of the case, as other therapeutic measures may be needed besides glasses. Indeed, he may aggravate reflexes, cause disease, foster delay and otherwise do positive harm.

The optician has his legitimate field as a mechanic, manufacturer and tradesman. He bears the same relation to the public as the druggist or instrument-maker. Any examining or prescribing

which he does is not founded on reliable knowledge, and any claims which he makes to fitness for such are mere pretense. The practice which he seeks being medical, the same requirements should prevail here as in any other department of medicine, and he should be made amenable to the same laws regulating it. The purpose of our medical laws is to protect the public from the practices of the incompetent. Let these laws, then, be made to reach and stay this growing abuse of "testing" or "refracting" eyes by those who are not qualified to do so. The requisite for the practice of any department or specialty in medicine is a knowledge of the whole body of medicine, and the practice of so-called "optometry" should be no exception.

212 FRANKLIN STREET.

Society Proceedings.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

ABDOMINAL SECTION VS. THE VAGINAL ROUTE IN THE TREATMENT OF PERI-UTERINE SEPTIC DISEASES.¹

DR. L. S. McMURTRY, of Louisville: Mr. President—The subject which the papers of Drs. Davis, Dunning and Fish have dealt with is one the importance of which cannot be over-rated. I have strong convictions on the subject, and, at the same time, there are men whose judgment and surgical ability we cannot question from whom I differ as to methods of procedure. The difference is very great and vital, and it becomes necessary for us to take the whole situation carefully in mind and discuss it fairly, thoroughly and impartially. As I understand it, the question, briefly stated, that presents itself to us is this—namely, whether the best method of treating inflammatory diseases of the pelvic organs can be obtained by a suprapubic abdominal section or by the vaginal route.

In the first place, the surgical approach to the pelvic organs by the vagina is not new. You all remember that Battey's operations at first were done through the vault of the vagina. These opera-

1. Discussion on the papers of Drs. Davis, Dunning, and Fish, at Richmond, Va., September 22, 1896. From Transactions, Vol. IX., p. 171 *et seq.*

tions were what he called normal ovariectomies, and all these years that pelvic surgery has been practised so successfully pelvic surgeons have recognised, in certain cases in which an immediate life-saving procedure was necessary and a radical operation could not be borne, that vaginal incision and drainage was a valuable surgical procedure; hence there is nothing really new, *per se*, about the question of vaginal operations. The only question that is new in that relation is as to the removal of the uterus. The operations that have been done for suppurative pelvic disease by abdominal section have been difficult and trying. Everyone engaged in this work has recognised that the surgical treatment of suppurative inflammatory disease of the adnexæ is among the most difficult of all surgical operations. Any method that will simplify or improve the procedure, rendering it easier of accomplishment and more satisfactory in its results, will be welcome.

It is interesting here to notice the origin of the operation and the manner in which it has presented itself to us in this country. French surgery was for a long time ascendant in the world, particularly in the days of Velpeau, Nélaton, and other men who were leaders in surgery. Abdominal section never flourished in France, and Parisians are not successful operators above the pubes. They have always, in their gynecic surgery, been working in the cervix and through the vagina, and while we were doing in this country and in England abdominal section for suppurative pelvic disease, it was not a success in France. Péan, Segond, Richelot, Doyen and Pozzi have come to the front and have advocated the vaginal method of extirpation of the uterus in order to drain the pelvis and cure suppurative pelvic disease. This method extended to Brussels, which is closely allied to Paris, where the same language is spoken and the profession is as largely controlled in its surgical opinion by Paris as though it was only across the Seine. Dr. Jacobs, of Brussels, an expert operator, became a convert to the idea of Segond, Péan and Richelot, and began to do this operation. Dr. Henrotin, of Chicago, who is a native of Belgium, became an exponent of the operation in this country. Dr. Jacobs was introduced in this country by Dr. Henrotin. His visit was followed a year later by that of Segond.

The introduction of this method was cordially received, as might have been expected, by that class of surgeons in America who are always looking out for novelties in surgical operations and are extreme exponents of the restless spirit of surgery. And

it is being made to appear that men who resort to abdominal section for inflammatory disease of the pelvic organs, who remove diseased structures and nothing else, are behind the time. This recital of recent history has a bearing upon the discussion of this subject which cannot be ignored. The personal equation in these operations is what determines the choice of methods. You know we have had in America, all these years, men who never operated much suprapubically, but were always ready to operate on the cervix, to curette the uterus and work in that direction. The introduction of this operation furnished to that particular school of American surgeons a field most welcome and attractive. They extirpated the uterus. If a man has been accustomed to operate through the vagina, his entire surgical training has prepared him for vaginal hysterectomy. If he has learned to operate successfully suprapubically, I do not think he will ever abandon it to take up the other operative procedure. In my judgment a surgical operation should be based upon and directed along those lines which will secure the recovery of the patient with the least sacrifice of organs possible, with the greatest safety possible, and that will restore permanently the health of the patient. These I would make the basis of an operative procedure. We never have had the results of vaginal operations for pelvic suppurative disease recorded in this country. When we get that history I believe the number of injuries to the bowel and bladder that have occurred will be astonishing. If you operate suprapubically and injure the bowel and the bladder and do not repair them, the subsequent danger to the patient's life is very great. In operating by the vagina all kinds of surgical sins can be committed and the patient's life may not be paid as a penalty. That appeals strongly to many operators.

An objection made to the suprapubic method is that it leaves a scar. I appeal to the Fellows here who have operated by the abdominal method, and ask if they have ever yet heard even one woman make any complaint of the scar? Personally I cannot recall a single instance. Again, immunity from hernia following vaginal operations is given as an argument in its favor. I think when we come to know the facts regarding vaginal operations we will find that a great many more hernias occur as a result of this method, together with prolapse of the vagina, than by the abdominal route.

The next objection to the abdominal operation is, that by leav-

ing the uterus it is a focus of infection and the patient is not well on account of it ; and another argument in favor of removing the uterine, after the tubes and ovaries have been taken out, is that it is no longer of any use. I do not think either one of these arguments will be found tenable.

I believe the number of operations done by the vagina for pelvic suppurative disease is diminishing. Many operators have started with the vaginal method, and before completing the operation have resorted to the suprapubic method, showing conclusively by their own technique that we have a more advantageous field of manipulation from above. Furthermore, advocates of the vaginal method decry drainage. They say it is absolutely not needed and should be abandoned ; that it is a disadvantage in that it produces hernia and makes holes in the intestines. They then claim that better drainage is afforded by the vaginal route. There is very little logic in such arguments. It is doubtful if some of the fundamental principles of surgery are ever improved upon ; as, for instance, Ambrose Paré's discovery of the ligature. We may change the material, but the method of tying an artery and of rupturing its coats so as to secure permanent closure is something that will probably remain in surgery forever. When we come to remove disintegrating and sloughing tissues, we should take them away thoroughly and completely, separating all adhesions and restoring normal relations. In these cases we apply a great principle of surgery which is as everlasting as the tying of an artery.

There is a field for vaginal hysterectomy in certain puerperal cases. There are cases of puerperal sepsis in which the uterus is riddled with small abscesses, where that organ is undergoing sloughing, and where the patient is reduced to such a degree that she should not be subjected to a very extensive operation. In such cases I can readily see that to quickly clamp everything to save time, to remove the uterus and establish drainage in that way, would be a procedure that has a field of application which is legitimate and valuable. But we have seen during the past two or three years hysterectomy done as a routine procedure. In my opinion it is bad surgery and I do not think it will last.

In regard to the other method of procedure, I do not see any reason to make a change. Nothing is more satisfactory in a case of suppurative salpingitis than to open the abdomen, turn out the masses, tie them off closely, separate all adhesions, clean out all dirt, insert a drainage-tube and put the patient to bed. No recov-

ery is more prompt, no procedure more rational, and no result more permanent and satisfactory.

Dr. JOHN M. DUFF, of Pittsburg: I was one of the last in my region to begin vaginal hysterectomy. I commenced to do it, perhaps, a little against my own judgment, because everybody else was resorting to the operation, and it became a fad. I operated on quite a number of cases by this method and my patients did well; in fact, they did so well that for some time I did not resort to any other method until the meeting of the American Medical Association at Atlanta. After listening to papers and discussions there I went home with my mind made up to do both operations—that is, I would put the patients in bed, side by side, and endeavor to ascertain the results. My operations since that time have not been great enough in number to draw such conclusions as I would like before expressing an opinion.

There is one important factor in connection with this subject which I have not been able to definitely decide for myself, nor has anyone else satisfied me fully—namely, with regard to the propriety of allowing the uterus to remain after removal of the appendages. There are some good reasons why, perhaps, it should remain. On the other hand, if allowed to remain it is a focus for sepsis, and as far as the condition of the woman is concerned, the results, as attested to me by my patients, are that they feel as well as do those who have had their uteri left *in situ*. I have been fully satisfied with one question that was brought up at the Atlanta meeting, which is that patients enjoy sexual intercourse fully as well, and two patients upon whom I have operated since that time, who did not have much sexual appetite prior to operation, have noticed an increase of the sexual passion since then. One factor of which Dr. McMurtry speaks as in favor of the suprapubic operation, is that the surgeon can always see what he is doing, and there is perhaps much less danger of injuring the intestine; but, on the other hand, there is not as much shock to the patient attending the vaginal operation. As a rule, when I operate by the vaginal method my patients rally sooner than they do after the suprapubic operation. They are able to be out of bed sooner than those upon whom I do a suprapubic operation.

I asked one of the internes of the hospital in Pittsburg to send me the temperature records of some cases upon which I had operated, and through a mistake they got mixed, hence I have only three of them in my pocket, and they happen to be the tempera-

ture records of the vaginal hysterectomy cases. I am sorry I have not obtained the suprapubic temperature records to compare with them. I will pass these three around. In one case the temperature rose 1° or 2° ; in the others there was comparatively no rise of temperature at all. The patients felt good and wanted to sit up in bed two or three days after operation.

DR. STONE: Was there a rise of temperature in any of your cases before the operation?

DR. DUFF: Yes. Two of them had considerable temperature; the other did not. One patient had a temperature of 104° when operated upon. On the second day after operation it came down to normal and remained so. We ought to be fair. I am trying to come to just conclusions in regard to the relative merits of the two operations. I remember a case two years ago that was brought into the hospital upon which I was afraid to operate, the patient having a temperature of 105.5° when placed on the operating table. I did a suprapubic operation, and within two or three days the temperature came down and never went up thereafter, the woman making an excellent recovery. Dr. McMurtry has intimated that it does not require as much skill to go in through the vagina as it does to do suprapubic work. It seems to me the factor in deciding the particular method to be pursued is a man's ability. Naturally he will resort to that method by which he can do the best work, and I believe I am among the number that do their best work through the vagina.

THE PRESIDENT (Dr. Joseph Price): I agree with Dr. McMurtry in regard to the importance of the three papers that have been read, and we cannot devote our time more profitably than to a discussion of the relative merits of the vaginal and abdominal operations. At the meetings of the American Medical Association, where so many different views are presented and where the general practitioner goes to get light, he really becomes confused. Dr. Davis is right in his position, but it is a difficult matter indeed for him to give you his precise position. For instance, he told you that in the desperate, dying class of patient—those that were almost helpless, with pelves full of pus,—we should resort to incision and drainage. While this method may afford temporary relief, a more radical operation will be called for later on. A great many cases where the vagina is incised and drained are placed on record as cures. If you incise a right iliac abscess and a left pus-tube, leaving the right ovarian abscess and right pus-tube, you leave half of the pus behind. You have only

half-drained. There will be an old, necrotic sac in the deep pelvis, and you should not leave it. You stick gauze in there and call it a cure. It is not a cure. In from one to fifteen years later the woman has a sinus or sinuses in the sacrum or groin, and then it is a hopeless case. Some of these patients are subsequently treated for sepsis or typhoid fever.

Twenty years ago, in one of the Philadelphia hospitals, the vagina of a woman was incised and drainage established, followed later by a suprapubic section, with the drain pulled through and tied around the pubic arch. One patient's vagina was incised several times by different Philadelphia surgeons; she went to Pottsville, and fifteen years after the incision there were seven sinuses about her sacrum and groin; through a fresh incision I evacuated a gallon of pus and established complete drainage. We must not lose sight of the history of pelvic abscesses by the old treatment of vaginal incision and drainage, and this is only a revival of it that we have had in most of our meetings. We have held fast to most good things in surgery, and if our forefathers had found the puncture and stab methods good, we would not have rejected them. I am sorry that Kelly reports thirty-seven cases of vaginal incision and drainage with one death; and just here I wish to touch upon a vital point: hospital surgeons at the present time are afraid of their colleagues and are also afraid of their board of directors. Their colleagues and the board of directors are now familiar with the methods of operating and the mortality following them. You will find surgeons throughout the country dismissing a class of cases that some of us have to care for. I have passed through one city in this country eight times to do operations rejected there as inoperable or hopeless. I lost three cases out of the eight. A surgeon recently said to his assistant: "We will have to be careful; we have had too many deaths, and the managers are complaining." He closed the incision, turned the patient over, and punched a little hole in her vagina for drainage. If a surgeon is afraid to open the abdomen for the purpose of enucleating huge pus-tubes and ovarian abscesses and repairing lesions of the sigmoid, freeing sixteen inches of ileum and repairing it if necessary, he should adopt the vaginal route, or send all such cases to a man with thirty-three vertebrae.

I look upon vaginal surgery as absolute play. Extirpation of the uterus by the vaginal method is one of the easiest operations in surgery. Enucleation of pus-tubes and ovarian abscesses in

cases of long standing is not so easy ; they are not enucleated by the vaginal method. We must consider work done by the vaginal route as incomplete. Here I will refer briefly to Jacobs's cases. In seventy-two cases he did two abdominal sections, in one of which he used the Murphy button, doing good surgery, and saving his patient. In the other he removed the kidney for ureteral fistula. Secondary operations have been quite numerous of late as the result of incomplete vaginal work. The vaginal operation is not sufficiently old to give us a group of cases that will turn up in the hands of others for completion. I must insist that vaginal operations are imperfect.

Someone has alluded to pelvic abscess. I have done nearly 4,000 sections, and I have not seen pelvic abscess independent of tubal and ovarian disease, except it was traumatic. A crochet-needle inserted through the vaginal vault may cause a broad-ligament abscess. We may have abscess in the cellular tissue due to traumatism, but I have never found one due to inflammatory mischief.

Reference was made to Dr. Noble's cases as errors in diagnosis. Three or four of them were cases of appendicitis, and two or three were pus cases with secondary operations for removal of the pus-tubes, and one a suppurating extrauterine pregnancy with the fetal bones sticking through the vaginal vault. Dr. Noble's cases were (nine) errors in diagnosis. Vaginal incision and drainage is an old operation ; there is nothing new about it. Extirpation of the uterus, as practised, is a simple procedure, and in America I do not think our results are any worse than they are abroad. I condemn the vaginal route, not because my mortality influences me in the least, for I have a series of vaginal hysterectomies of fifty-three cases with one death, and in this series I removed everything. It is a safe operation, but an incomplete one. The surgeon remains in perfect darkness as to what exists above.

Dr. McMurtry has alluded to appendicitis complicating tubal and ovarian disease. In every hundred abdominal sections for suppurating tubes and ovaries, we remove the appendix in 6 per cent. of the cases. I removed it day before yesterday in a case, and also twice last week. I removed it along with the suppurating tubes and ovaries. For instance, in the last twelve days I have stitched the bowels seven times in suppurative forms of disease. Can you imagine anyone adopting the vaginal route with such a mental picture before him ? Only ten days ago I operated on a

case where, if I had selected the vaginal route, I should have overlooked two lesions. A few days ago a physician in operating on a case of appendicitis found an adherent infected omentum, which was not removed. He lost his patient and then regretted that the infected portion of omentum had not been removed. Abscesses and the like are commonly overlooked where the vaginal route is resorted to. Four days ago, while examining a patient, I recognised a twisted pedicle. The common history of twisted pedicle is pain, rapid increase in the size of the tumor; and I said to the doctor by the side of me, "we have a twisted pedicle to deal with." I opened the abdomen, found an ovarian cyst in the bottom of the pelvis, found the omentum adherent to the tumor, and after reconnoitering I thought we had the left kidney or spleen, but, after freeing the omentum, it turned out to be a tumor as large as a child's head growing from the small bowel. I did a resection of the bowel, then removed the ovarian cyst. Suppose I had done the vaginal operation, I should have removed the small tumor and permitted the malignant tumor of the bowel to remain.

"Septic uterms, rotten uterus"—these are peculiar terms. If there is a single woman in this city with a "septic" or "rotten" uterus, she will be in glory in a few hours. Sepsis is the same the world over. It kills quickly. "An infected, rotten uterus." You commonly hear men using these expressions while criticising some one else's work. It is very curious, but a few years ago the same class of men would remove a tube and ovary, and the woman afterward would bear children. Now they say the uterus is "septic" and it must come out. A few years since, operators recorded a series of fifty and 100 cases with the most happy results. But now the results are all bad. The man who does a complete operation may, perhaps, have an additional mortality of 3 to 5 per cent.

As to insanity, we have not in this country now what may be termed a surgical asylum for the insane. It is folly for us to talk about this matter with a lot of politicians who are at the head of our institutions. The man who will open a private asylum of this character will do the best work that can be done for the women of our country.

I have repeatedly found mesenteric abscesses and growths above the pelvis in my surgical work, independent of pelvic disease coëxisting. In pelvic surgery the removal of pus-tubes and ovarian abscesses is the simple part of the work. The leaving of a healthy

and normal condition above, after removing the pathological conditions and lesions present, is really the important part of our work, and it is absolutely impossible to do complete surgery by the lower route.

Dr. J. HENRY CARSTENS, of Detroit: Dr. Dunning reported a number of cases that he had operated on, among which were three cases where the uterus was diseased, and which he thinks he will have to remove after having performed pus-tube operations. I am somewhat in the same position. I have operated ten times to remove the uterus where either myself or somebody else had previously operated for diseased tubes. The uterus was diseased. There was a degenerated condition of the mucous membrane. The hemorrhage and nervous symptoms continued, and two of them were the wives of physicians. Formerly some physicians did not believe in the removal of a pus-tube, but now they say that if the uterus is diseased also, you had better remove it at the primary operation, if you think it can be done all at once. So, gradually, we have been drifting around from one side to the other.

Dr. Dunning says that some of us have been bitterly attacked. I think no one has been more bitterly attacked than Dr. Price, and each one of us knows what it is to be attacked. Dr. Price may be considered as a pioneer in this kind of work. No one, however, has a right to condemn the vaginal method of operating and say that it is incomplete. He cannot say it is incomplete and that the ultimate results cannot be good until he has tried it. All innovators have been abused or ridiculed and hounded in every possible manner. Such men as Hegar, Tait and Battey have been vilified in every possible way. We have all been called reckless and considered as men without conscience. Péan, Segond and others have been subjected to the same abuse. This is not fair. These men are not all liars, and if they positively assert that they have had so and so many hundred cases which were successful, their assertions should count for something and their suggestions should be tried. After a fair trial every method will find its level.

I believe that vaginal hysterectomy for pus-tubes will show a smaller mortality and give better ultimate results than abdominal section. That is my present belief. I think cases should be selected, however. I believe in conservatism. In a young woman, I believe in abdominal section and an effort to save, if only one-half a tube and one-half of an ovary; while in women near the menopause, vaginal hysterectomy should be the rule. I wish to be

distinctly understood that I am decidedly in favor of vaginal hysterectomy in certain cases, and I do not believe that all cases should be subject to abdominal section; but that one class of cases should be subject to one operation and another to the other. Nothing should be condemned upon theoretical grounds. No one has a right to assert things about which he knows nothing. First try them honestly and faithfully. The surgeon should understand the technique of both operations.

Dr. ALBERT GOLDSPOHN, of Chicago: It has been my experience that vaginal hysterectomy is an easy operation. I feel very kindly toward it; but because it is easy is not a sufficient reason for sacrificing the uterus. There is a vast difference whether a woman knows that she loses the uterus for carcinoma or for some other disease which she knows will not kill. Cancer is a terror to women, and when a woman knows that she has had a carcinomatous uterus she does not doubt that she has been blessed in its removal. But when we remove this organ for other causes, such as an inflammatory disorder for instance, the patients often dote over their imaginary loss, and what we call sentiment, with them is a mental pain that borders on mental aberration, and sometimes leads to it.

During the last winter a deep impression was made upon my mind by being terrified for several months at the prospect of two of these cases on the verge of going into an insane asylum. It took great care on the part of myself and a neurologist to keep them out.

The question regarding the abdominal or vaginal method of operating cannot be definitely settled in favor of either procedure; but as surgeons we must occupy a middle ground and use judgment. There are some cases in which the uterus should be removed, and if operated upon at all it should be attacked from below. On the other hand, if we have to deal with large pus-tubes with the intestines adherent to them, it is not easy to attack such a case from below. I have tried it, and know what it is. The total absence of sight, in such cases, the relative inaccessibility and the exceedingly strained palpitation endanger the patient more from the consequent bad or imperfect surgery than does the shock from a careful but thorough and complete ventral operation.

Dr. GEORGE H. ROHÉ, of Sykesville: I did not intend to take part in this discussion this afternoon, but several statements made in the papers ought not to go out without an attempt being made

to call them somewhere near the middle line. In the first place, I would like to speak of the removal of the uterus from below. A good many years ago Dr. N. R. Smith invented an instrument by which lithotomy could be easily done, and some of the surgeons in Baltimore objected to it because "any — fool could do lithotomy now." The trend of the argument in this discussion has been that almost any kind of a fool can remove the uterus through the vagina. To me it is a good deal easier than to remove it from above, and that is the reason I prefer to do it in that way. I believe it is the method to pursue, and that it is just as good for the patient. In the few instances in which I have operated in this way I think it has been better for the patient than if I had operated by the abdominal route.

The statement has been made in the papers read here that women who have the uterus and appendages removed were in great danger of becoming insane; that the nervous phenomena were very much more severe than when the ovaries and tubes were alone removed. I would like to know where the facts are to be found upon which this statement is based. My own observation does not support this view.

Dr. JAMES F. BALDWIN, of Columbus: I think the gist of the papers has been lost sight of—namely, whether in removing the appendages we shall resort to the abdominal or to the vaginal route. A discussion of this subject is threshed straw; it was considered by us a year ago at Chicago; it was discussed at the Atlanta meeting of the American Medical Association, and is, indeed, a perennial theme. The advantages of both methods have been considered. One point to be discussed is whether we shall remove the infected uterus when we take out the appendages, or whether we shall not. Dr. Dunning tells us that he has operated on 116 cases, has removed the appendages and left the uterus.

Twelve he reports as not well; three were distinct failures and will have to be operated on later for removal of the uterus. A friend of mine has corresponded with a large number of operators throughout the world, and has accumulated several thousand cases of operations for removal of the appendages. In 5 per cent., as an average, there has been failure to effect a cure; 95 per cent. are well with their uteri. I have no doubt that the complaints of the 5 per cent. of failures have given the operators infinitely more annoyance and anxiety than the praises of the 95 per cent. of the cured have given satisfaction.

For several years I have been in the habit, where the uterus was found distinctly diseased and enlarged, or where there was a history of long-continued trouble, of taking it out. I have never regretted it. I have never known a woman go insane or complain of loss of sexual appetite. I have found the sexual appetite just as good as before operation, and in a number of cases a good deal better; not, I mean, better than it was immediately before the operation, but better than when the parts were normal. To demonstrate the condition of the uterus in these cases I frequently take that organ, just as I have removed it, and give it a thorough curetting before the class. I then split it in two and show how little effect the curetting has had. The tension in these cases is so great that the uterus, when thus split, opens very much like a grain of popped corn. I not infrequently refer to them as cases of popcorn uterus, and I do not believe that any amount of curetting, or carbolic acid, or iodised phenol, will restore such uteri to normal conditions. Hilton, in his work on Rest and Pain, an exceedingly valuable book, alludes indirectly to this class of cases when he speaks of tension as giving rise to pain, and I think that this tension is largely the cause of a good deal of the pain and other nervous symptoms that our patients complain of.

As to the vaginal route, I have made a score or more of vaginal hysterectomies. It is a very easy operation. The first one I did was done in seventeen minutes. I was astonished at its ease. But it does not seem to me surgical. When I have made an abdominal hysterectomy, removed all I think there is to be removed, brought the peritoneum nicely together, tightened up the broad ligaments, so as to support the stump of the cervix, brought in the round ligaments also, so that the vagina is held up nicely, and have then closed the abdomen, I feel that I have performed a surgical achievement. When I have operated through the vagina I do not know exactly in what shape things are above. I am trusting largely to Providence. I do not feel that I have done a good surgical operation. Nevertheless, I think there is a fairly broad field for the vaginal operation. I think if I could go over again some of the cases I have operated on through the abdomen, I should go through the vagina for the temporary purpose of improving the condition of the patient preparatory to doing a more radical operation, because I like finally to feel that the patient has been surgically well operated on.

I think the French surgeons have been carrying to an extreme the matter of vaginal hysterectomy for inflammatory conditions.

It may be that we have been doing too much through the abdomen for these same conditions, and that somewhere between lies a golden mean. I am planning now to visit Paris this fall and see these men work, and then draw my own conclusions as to the character of the work itself and the class of cases which would be best subjected to the vaginal operation.

DR. WALTER P. MANTON, of Detroit: Between 3,000 and 4,000 insane people have come under my observation, and I do not recall a single instance in which the insanity could be traced to the removal of the uterus or the appendages. In my own experience I have found during the last thirteen years but two instances in which I was sorry that I did not remove the uterus at the time of the primary operation. One of these women had a specific uterus, which has given a great deal of trouble since the operation. The other woman became infected subsequently by her husband, and I think all that trouble would have been obviated if I had removed the uterus. These are the only two cases that I can recall in which the uterus should have been removed.

DR. J. WESLEY BOVEE, of Washington (by invitation): I placed myself on record at the Atlanta meeting of the American Medical Association as regards the relation of the two operations, and I simply desire to say that I have not modified my opinion since. We have forgotten a few points in the consideration of this subject which have some bearing upon it. There is often infection of the ligature, which causes trouble. There are frequently injuries to the uterus, or little points possibly that have not drained well, and this gives trouble. It is not the uterus alone which gives trouble, and in some cases after you have removed the uterus nicely you will not have cured your patients entirely. So far as drainage goes, I have not drained through the abdominal opening for a long time, but entirely through the vagina in the manner described.

THE PRESIDENT: Imperfect work and imperfect materials have been used as arguments against legitimate procedures. No one should criticise vaginal operations without a working knowledge of both the abdominal and vaginal methods. He ought not to, at least. An argument should never be made against any operation until it has been thoroughly tested. We know there are a number of men in America who are condemning operations, and yet are wholly ignorant of them. Jacobs and Segond are simply masters in their vaginal operations. No one can read Jacobs or hear Segond talk without recognising at once that they are both

masters and fully understand their work. But it goes without saying that their work is incomplete. If you can dismiss everything above the uterus, if it is simply a matter of removal of tubes and ovaries and not of correcting the overlying complications, the vaginal route is the route to pursue. If I could dismiss everything above, I would never open the abdomen again. For the removal of the uterus alone the vaginal route is important. My little girl asked to go with me one day to the city, and I said "No, I am too busy." She then asked me if I was going to operate. I replied, "Yes." She is only eight years old. I said to her, "Do you understand what that means?" She replied, "Yes." "What is it?" She said, "Fixing people's insides right." As long as I have to fix people's insides right I shall do the suprapubic operation, and not neglect my duty to my patient by an incomplete procedure or shirk my duty.

Dr. RUFUS B. HALL, of Cincinnati: It was not my intention to say anything on this subject, but one or two statements that have been made prompt me to say a few words. Like the other members of the association I believe there is a field for the vaginal operation. We all know what a relief it is to our patients and a gratification to ourselves in vaginal extirpation of the uterus in certain cases of cancer of this organ. After the uterus is taken out they remain well for an indefinite period, and we are much gratified at the result. In the majority of cases it is a perfectly easy operation. We go about it and do it without much trouble. Occasionally we have to separate an adherent ovary that is high up and very difficult, but we peel it out and rid the woman of her trouble. When it comes to removal of the uterus where there is bilateral disease of the appendages, as a routine practice, as some operators claim, I do not think it is the correct method. It is known to be true that a large per cent. of cases of bilateral disease of the appendages get well after having been operated upon by the abdominal route, and remain well, in which the uterus was not removed. I should say the percentage would be somewhere about 95. It is a simpler and less mutilating operation than taking out the uterus, which must be done in the other method for this reason.

I much prefer to do a hundred operations for bilateral disease of the appendages and leave the uterus in every case, and later remove the uterus where it is indicated in the 5 or 6 per cent., if I were compelled to do one or the other. I believe in some instances

that it would not be a bad idea if we could decide just when to take out the uterus with the appendages ; but when I do that, I do not do it by the vaginal route, as a rule. I can do it much more easily and satisfactorily to myself by the abdominal route, and then I know I have done a complete surgical operation when I am through. When we resort to the vaginal route with the clamp, and pack the opening with gauze, we cannot see what injury we may have done to adherent coils of intestine or omentum. An adherent coil of bowel to the gauze that is left impacted must necessarily follow in some cases, and is a source of danger to the patient. There are many points I would like to speak of, but as my time is limited I will not do so. The main point with me is that I cannot repair intestinal injury through an opening where I cannot see what I am doing, as I can when operating by the abdominal route. We must necessarily injure the bowel in a given number of pus cases. Our President said that he did so twice last week ; and I did it once, also twice the week before in similar cases. If I had done a vaginal operation I do not think I would have been quite so successful.

Dr. DAVIS (closing): Many of the points have been covered in the discussion, and it is not necessary for me to dwell on those phases of the subject. The choice of operation will depend largely upon the operator, and it is well, perhaps, that some surgeons are extremists in one method of operating, and others in another. By such extremes we often reach the highest order of work, notwithstanding those who confine themselves to one particular method generally see nothing good in any other method. It would seem that the whole question should hinge upon the disposition of the uterus. What shall be done with it? We understand why the French surgeons resort to hysterectomy. They have operated by the vaginal route more frequently, and have become accustomed to it. The removal of the uterus is the preliminary step to all their pelvic operations. It must be removed to get at the organs. But it is hard to understand how Americans, who are removing the uterus from above, can reconcile this procedure, for it does not facilitate their work in the least. The French surgeon does it because it enables him the better to do intrapelvic operations ; while the American does it—I won't say to increase his number of hysterectomies, because that would not be fair ; yet it affords a splendid opportunity for one who has become tired of simply removing the tubes and ovaries to make a large list of abdominal

hysterectomies. There can be no advantage in it. These very men have published statistics in which they claim to cure a large percentage of their cases by the removal of the tubes and ovaries before they adopted this method.

The men who have cut open tubes and injected bichloride of mercury into them, and claimed to have cured so many cases by the curette, are the men who are now advocating this method most enthusiastically. What we want to accomplish first is the conservation of life, and the old practice of incising pelvic abscesses, to bridge the patient over, is a good one. We have all resorted to it. There is not a member here who would not indorse that procedure for a certain form of pelvic abscess, but where the pus is in the tubes or ovaries there is a division of opinion. It is not correct to say that in every case in which we incise a pelvic abscess we should expect to have a reaccumulation of pus; for many are cured. After these abscesses have been drained frequently a mass will be left behind. It is tubal, and if you incise it and pack gauze in the cavity you will destroy it. When we incise the tube we do it for what we would do for an abscess, and the pyogenic membrane of the tube is replaced by granulation tissue, and, finally, the tube almost disappears. My own work warrants me in continuing to incise tubes and ovaries, and I am more and more encouraged to do it on account of the good results of others. Our first duty is to conserve life, and the second is to conserve important organs. It is a beautiful thing to go in and enucleate a pus-tube, but our patients are demanding of us that we save important organs, and where a number of good men record many successful cases by the simple operation of vaginal section in connection with curettement of the uterus, we have no right to do a more formidable operation till we have given our patients the benefit of this preliminary work.

As to drainage, I think this question ought to be settled. It makes no difference whether gauze drains pus or not. If the gauze will drain serum and protect the abdomen for forty-eight hours, you do not care then whether it drains or not. You gradually remove the gauze from the external opening to keep it patent, and the fluid will come away. The abdominal cavity will take care of itself after forty-eight hours. If you remove the gauze sooner than four or five days you are apt to break up adhesions and induce a worse condition than existed before the operation.

As to diminution of sexual desire, I believe that the consensus

of opinion is that after a time there is less sexual desire where the tubes and ovaries have been removed, yet we have a great deal of difficulty in ascertaining from patients the facts about this matter, the sexual desire having been destroyed often by the disease for which the operation was performed.

Dr. McMURTRY: Before Dr. Davis sits down, I want to ask him to make clear one point, as we have so much respect for his opinion in these matters. I would like to have him explain whether or not, in the class of cases in which he has hitherto done abdominal section for suppurative pelvic disease in women, he has changed his practice, and whether he now substitutes drainage for the operation of abdominal section; whether he is applying the principle that he has hitherto observed, or whether he has adopted a new procedure in his practice?

Dr. DAVIS: In reply to Dr. McMurtry, I will say that I have practised what he and all the rest practise—namely, to incise and drain pelvic abscesses. I realise that they have their origin in the tube, and after incising such abscesses I expected afterward to do a radical operation when the patient was in a better condition. Now, I simply incise these abscesses, and examine my patients weeks afterward, and if I find a considerable mass connected with the ovary or tube, instead of doing an abdominal section I resort to vaginal incision. I do not curette the uterus at the first operation, believing that the patient should not be taxed that much. I reserve curettement for the second operation, when I incise the mass containing the tube or ovary, and pack it with gauze. After a short time the tube will be obliterated. In many of these cases a radical operation is saved.

Another point: the adhesions of which Dr. Price spoke do not remain, particularly in the acute puerperal cases. They are like appendiceal adhesions. You drain an abscess of the appendix, the appendix is drained, and you do not have to do another operation. Should you open the abdomen a few months afterward, you would find scarcely any adhesions. In the puerperal cases of pelvic abscess, where we have to incise large collections of pus, the adhesions are very extensive, and it is not wise to break them up at the first operation. In other words, it is nature's method of protection, and we should let nature take care of them. In the second operation you will have to break up some very firm, well-organised adhesions, but this is a small matter when you have only the tubes and ovaries to deal with.

The PRESIDENT : Dr. Davis refers to a class of cases in which he resorts to vaginal incision and drainage. If the patients are not relieved by this method of treatment they generally go to some other practitioner. I may say that 90 per cent. of the cases where this treatment alone is carried out are not well, and they go to other surgeons. For instance, during the last ten days ten patients have come to my hospital for a second or third operation. A good number of them have been timid, incomplete procedures.

Dr. DUNNING (closing the discussion on his part) : I have very little to say in closing the discussion. There seems to be a misapprehension regarding some statements I made. I distinctly stated that it was entirely justifiable to remove a malignant or neoplastic uterus. This answers the question of Dr. Carstens. It is a life-saving operation.

Regarding the question that was asked by Dr. Rohé, I stated that but one instance out of eighty-four cases of hysterectomy which I have done showed any signs of insanity afterward, and she had evidences of it before operation.

With reference to temporising in cases of acute pelvic abscesses, it has been my practice for twenty years to do this. I have incised at least twenty abscesses during the last year. Of this number I have had to do a secondary operation in three instances. I have watched some of my patients for fifteen years after incision of a pelvic abscess, and in many there has been no recurrence of the trouble. These patients were my friends. It is perfect folly to say they did not get well. I have delivered some of them of babies since. Neither Dr. Price, Mr. Tait, nor anyone else can convince me that they do not recover. Of course, a certain percentage of them will have to be operated on again. This is as near the truth as I can get. No argument can upset my statements in this regard. There is no question but that we ought to do thorough work.

Finally, I want to say that I have admired our President ever since I have known him. He has been an inspiration to everyone who has observed his successful work. His work, too, has been instructive to me. I have watched every report he has made, and have been guided largely by his work, but I differ from him on this point. His conviction that the idea he advances upon this subject is the ultimate truth is no stronger or more deeply rooted than is mine, that to pursue the course he advocates would with the average man lead to the sacrifice of many lives, which, if the

lesser radical method were adopted, would be tided over and carried beyond the danger-point, and would ultimately be restored to health.

Dr. FISH (closing the discussion): Some two or three weeks ago I called the attention of our local society to the fact that uteri were seemingly being removed in a wholesale way. In my region of the country it has often been remarked that we take out the uterus first and make the diagnosis afterward. If this association advocates the removal of the uterus every time we take out the tubes and ovaries, it is going to lead to wholesale hysterectomy all over the civilised world. When such a man as Schauta, of Vienna, says that whenever we find a unilateral pus-tube due to gonorrhea, we must remove the other tube and uterus also, it seems to me he is going too far.

Again, it has been remarked that when the uterus is left, after removal of the tubes and ovaries, we frequently have hemorrhages or purulent discharges which do not yield to curettage or cauterisation, and that at last the uterus must be removed. While this may be largely true, if only 50 per cent. of the patients recover, is it not better for us to leave the uterus?

With reference to insanity, I do not claim that I have ever seen a case of insanity follow hysterectomy, but I have had cases of mental "blues" or mental depression in women who seemed to think of nothing else except the fact that their uteri were gone, and I do not know what it will lead to later on.

I have had patients with carcinoma of the uterus who had the mental blues before their uteri were taken out, and who felt mentally improved after they were removed. I have done vaginal hysterectomy sufficiently often to satisfy myself that it is a simple procedure by the clamp, and I shall continue to use the clamp in cases of carcinoma of the cervix until I find I have a large number of cases of prolapse of the vagina as a consequence, when I will probably stop. For high pus-tubes and other pathological conditions of the pelvic organs I shall continue to operate from above.

HAG now claims that uric acid is derived largely from animal foods, hence the diseases resulting from an excess of the acid in the system can be controlled and prevented by proper regulation of the diet.—*Denver Medical Times.*

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CONDUCTED BY ALVIN A. HUBBELL, M. D.

HOLOCAIN—A NEW LOCAL ANESTHETIC.

GUTMANN (*Deut. Med. Woch.*, March 11, 1897,) relates his clinical investigations with this new anesthetic, which is closely allied to phenacetin. The chloride of holocain crystallises in white needles, dissolves in hot water, but is only sparingly soluble in cold water. If the salt is heated with water in a glass vessel the solution is often cloudy, owing to a small amount of alkali present; hence a porcelain vessel should be used. The author first records his experiments upon rabbits. He has used it in thirty cases in men, of which thirteen were examples of a foreign body in the eye, two of keratitis, seven of operations on the eye and in eight cases the eyes were healthy. One minute after the introduction of three to five drops of a 1 per cent. solution there was anesthesia of the cornea. A passing, burning sensation was felt. The foreign bodies were removed without inconvenience, and the galvano-cautery was used in a case of corneal ulcer and in a case of keratitis. Tattooing was also performed in two cases of leucoma. In one case it was possible to compare tenotomy of the eye muscles under cocaine and under holocain. Less pain was experienced in the latter instance. The duration of anesthesia under holocain is from five to fifteen minutes. The cornea remains moist and shining. The ocular tension is not diminished. The pupil remains unaltered and accommodation is unaffected. In a patient aged forty-eight three drops of a 2 per cent. solution of cocaine were introduced into one eye; anesthesia appeared in two and a half minutes, and lasted three and a half minutes, the pupil dilated and the tension diminished. With three drops of a 1 per cent. solution of holocain introduced into the other eye anesthesia appeared after a slight feeling of burning one minute and lasted nine minutes; the pupil was not dilated and there was no alteration in tension. The rapidity of anesthesia with holocain is an advantage. The dilatation of the pupil under cocaine for the removal of foreign bodies is a disadvantage. The lessened pressure is a drawback in cataract extraction, but useful in operations for glaucoma. The author says that holocain should not be used subcutaneously, as intoxication symptoms were rapidly

produced by a small dose in a rabbit. For external use he recommends it as a substitute for cocaine.—*British Medical Journal*, April 3, 1897.

EUCAINE.

L. S. SOMERS, (*Therap. Gaz.*, January 15th,) has recently used eucaine in a series of cases of hypertrophic nasal catarrh in place of cocaine to produce anesthesia of the enlarged turbinals, so that reduction in their size by cauterisation might be effected. A 4 per cent. solution of eucaine hydrochlorate in distilled water was used, this corresponding to the strength of cocaine solution previously employed for that purpose. The drug was applied to the turbinated bodies in the same manner as cocaine, by saturating a cotton plug with a definite quantity of the solution and applying it to the part to be operated on until anesthesia was complete. The cauterisation was effected by means of chromic acid crystals melted on the end of an appropriate applicator by means of the alcohol lamp. The results obtained can better be expressed by comparing the effects of cocaine and eucaine *seriatim*. Cocaine usually produces its anesthetic effects in the nasal cavity in from three to five minutes, anesthesia continuing for twenty minutes to half an hour. In the series of cases in which eucaine was used, anesthesia was not complete until eight or ten minutes had expired, and the loss of sensibility remained about twenty minutes. When an excessive amount of cocaine solution is used in the nares it occasionally flows backward into the nasopharynx, producing a very uncomfortable sensation of numbness in that region. It was noticed that this did not occur so markedly when eucaine was used, probably because of its slower anesthetic action. Eucaine causes hyperemia of the mucous membrane when locally applied. This action is directly opposite to that of cocaine and renders the drug of little value when the turbinal tissues are much hypertrophied, as the cauterising agent cannot be introduced into the nasal cavity without injuring the septum. This action of eucaine, in producing a temporary local congestion, militates greatly against the use of the drug in active inflammatory conditions, but may possibly be obviated by using equal parts of the eucaine and cocaine, as recommended by Berger. Eucaine is a poison similar to cocaine, but has the great advantage of being decidedly less harmful to the organism when used in the same doses. Another advantage which the drug possesses over cocaine is that it may be kept for an indefinite

time in solution with sterilised water, 1 part to 10. The solution may be repeatedly sterilised by boiling without impairing its anæsthetic properties.

Pouchet, at a meeting of the Société de Thérapeutique, (*Sem. Med.*, February 3d,) said that he had investigated the physiological action of eucaine, and had found that the toxic equivalent of that drug was almost equal to that of cocaine. Moreover, eucaine may produce toxic effects which may even prove fatal without any prodromic stage. It acts on the heart with an intensity equal, if not superior to, that of cocaine. In a frog in which 2 mg. of eucaine were injected, there was observed a considerable slowing of the heart's beat with arrhythmia, whereas equal doses of cocaine produced no effect. Eucaine must, therefore, be looked upon as rather a dangerous anæsthetic.

Reclus, who has studied the effects of eucaine from a clinical point of view, has satisfied himself that in equal doses its anæsthetic power is less than that of cocaine, and he thinks therefore that it should not be used in serious operations.—*British Medical Journal*, February 27, 1897.

THE APPLICATION OF THE RÖNTGEN RAYS IN THE DIAGNOSIS OF FOREIGN BODIES IN THE VITREUS.

DR. G. O. RING (*Transactions of College of Physicians of Philadelphia*) exhibited two radiographs, showing the presence and the approximate location in the vitreous of a piece of metal, and the patient upon whom Mule's operation had been performed.

Eighteen months previously a piece of steel had entered the right eye through the cornea, producing a tear in the iris, cataract, and complete blindness. The eye had become subject to attacks of ciliary inflammation, and recently the left eye had shown signs of sympathetic irritation. The steel, surrounded by exudate, could not be dislodged from its position in the ciliary body by the Hirschberg magnet, and evisceration was performed and the glass inserted. Very little reaction followed. In the discussion Dr. H. T. Hansell said that the case he reported in the discussion in December was exposed for eight minutes, and the skiagraph showed exactly the position of the foreign body in relation to the shadow of the bone; but this picture demonstrated what his did not—namely, that the Röntgen rays will cast the shadow of a piece of metal lying in any part of the vitreous. This method is extremely valuable and now almost essential in the diagnosis of the

presence and composition of foreign bodies. Dr. George Friebris said that he preferred decidedly evisceration to enucleation when feasible, and was gratified to find that the reaction may be insignificant. Dr. C. A. Oliver said that it must be remembered that should the vitreous contain blood-clots the magnet must be brought almost in contact with the metal before the latter can be moved from its position; and, again, should the metal, during its passage through the vitreous, fall from the magnet, it may pursue a direction entirely different from that in which it had been carried by the magnet.

A PIECE OF STEEL IMBEDDED IN THE CILIARY BODY LOCATED BY
MEANS OF RÖNTGEN'S RAYS.

DR. DE SCHWEINITZ (*Transactions of College of Physicians of Philadelphia*, February 16, 1897), described a case in which extraction of a piece of steel was performed with the electro-magnet after two similar operative procedures without the use of the rays had been unsuccessful. In spite of the repeated traumatism the patient recovered with good vision. The foreign body had remained in the ciliary body for twelve days and had caused cyclitis. Dr. Max J. Stern, of the Philadelphia Polyclinic, furnished the radiograph, which clearly indicated the position of the foreign body, and which had been unrecognisable by ophthalmoscopic examination, owing to the hazy condition of the media. In the discussion Dr. Hansell said that the case just reported was the fourth in Philadelphia, and with the exception of those of Williams, of Boston, and Clark, of Columbus, the only ones that have thus far appeared in print. Dr. de Schweinitz was to be congratulated on the brilliant success following the extraction of the steel. The condition of the eye indicated that still further improvement of vision was to be expected. It has been thus positively demonstrated that the Röntgen rays will not only penetrate the coats of the eye and the media, but also the bones of the orbit, and that both the presence and the approximate location of a piece of metal can be positively diagnosticated. Dr. Norris said that in confirmation of the last remark he had recently treated a case where Dr. Leonard has, by passing the rays through the bones of the head, demonstrated the presence of two No. 6 birdshot in the orbit and one in the pharynx in the same patient. The Crooke's tube was held on one side of the head and the plate fastened on the opposite temple. Dr. Wm. Thomson suggested the advisability of

inserting into the conjunctival sac a strand of lead wire and the encasing of the anterior section of the ball in a lead plate as material aids in locating the precise position of the foreign body.

OBSTETRICS, GYNECOLOGY AND PELVIC SURGERY.

CONDUCTED BY WILLIAM WARREN POTTER, M. D., Buffalo, N. Y.

Examiner in obstetrics, New York State Medical Examining and Licensing Board.

SHALL HYSTERECTOMY BE PERFORMED IN INFLAMMATORY DISEASES OF THE PELVIC ORGANS ?

DUNNING (*Am. Jour. Obstet.*, October, 1896,) reviews this subject with the following conclusions :

1. We recognise the utility of hysterectomy in a small percentage of cases of bilateral suppuration of the tubes and ovaries in which the uterus is distinctly septic, and in cases of septic uteri which cannot be cured by other means after bilateral salpingo-oöphorectomy.

2. We oppose hysterectomy, as a rule, in inflammatory diseases of the pelvic tissues, upon the following grounds, viz. :

(a) The uterus is the central organ of the reproductive system, and should not, except for palpable and urgent cause, be extirpated.

(b) It is only in rare cases that the uterus is so far diseased as to resist the curative effect of appropriate treatment.

(c) The removal of the uterus profoundly affects the nervous system and emotional nature of young women deprived of this organ.

(d) We oppose the removal of the uterus from anatomical reasons—to-wit: As a result the vagina is shortened; the anatomical relations of the bladder, sigmoid and rectum are changed; the elasticity of the pelvic diaphragm is greatly diminished or entirely removed, the elastic tissue being largely replaced by sensitive scar tissue.

(e) In married women it often disturbs the sexual relations of husband and wife, and is apt to induce mental depression.

(f) Vaginal hysterectomy compels the use of drainage, because of the necrosis of tissue and suppuration induced.—*Memphis Med. Monthly*.

HYDRAMNIOS AND ITS COMPLICATIONS.

DR. A. P. STONER (*Med. Standard*) contributes a study of this subject to the *Medical Record*, in which he makes the following

suggestions: (1) That cases of hydramnios are frequently complicated with cardiac or renal disease, in which case the life of the fetus must take secondary consideration. (2) That faulty presentations frequently accompany this anomaly and should be sought out early. (3) That malformations of the fetus may exist and obstruct the progress to delivery. (4) That the danger of post partum hemorrhage is great and should be carefully guarded against. (5) That an antiseptic management is a prerequisite to the successful treatment of these cases.

DR. GOLDSPOHN, of Chicago, (*Dunglison's Coll. and Clin. Record*), thinks that a certain amount of laceration of the cervix is attendant upon natural labor. If the tear does not extend more than midway between the external and internal os, it is not pathological and should be left alone; if it extends higher up, it leads to ectropion and often retroversion and demands operative measures.

FERRIPYRINE.

DR. O. SCHAEFFER, (*Münchener Med. Wochenschrift*, 1895, No. 53,) of Heidelberg, proposes this new hemostatic for gynecologists and obstetricians. He reports a clinical case and defines the limits of its employment as compared with ferric chloride as follows:

1. As simple hemostatic in all genital hemorrhages, in which a corrosive action is not required, as in the above case. In the parenchymatous bleeding accompanying operations the use of such a styptic in sterilised form is advantageous.

A corrosive action is only desired in the treatment of endometritis in order to destroy the remains of the infected mucous membrane after curettage, and for this purpose ferric chloride is convenient.

The styptic action is usually developed by the use of the 16 per cent. aqueous solution of ferripyrine (a beautiful deep-red liquid) with a padded sound.

2. As hemostatic and astringent, for intrauterine and vaginal injections and douches in endometritis (not only the hemorrhagic form) to give a new tone to the mucous membrane; also in metritis to excite increased secretion.

The vaginal irrigations not only influence any colpitis present, even in gonorrhea, by their astringent action, but also the exposed and hyperemic parts of the mucous membrane of the cervix, which are depleted of blood by the action of the ferripyrine, whilst the

ejection of the uterine secretions is favored by the promotion of contractions.

A further desirable property, especially in vaginitis, ectropion and endometritis is the analgesic action of ferripyrine.

The employment of 1 to $1\frac{1}{2}$ per cent. solutions by means of enemata or tampons is usually sufficient for these purposes or in florid, extremely painful conditions of vaginitis gonorrhoeica, by insufflation of the powder.

3. The applicability of ferripyrine in powder form is a great advantage over ferric chloride. Apart from the above affections, it is consequently available for application to bleeding and extremely painful carcinoma post operation and with copious secretion. Especially is this the case when palliative surgical measures are no longer possible because the destructive ulceration is too far advanced.

The contemporaneous analgesic action is due to the relation of ferripyrine to antipyrine. Up to the present there was no powder which simultaneously stayed both blood and pain (through anesthesia), reduced the secretions and possessed no corrosive action.

The application is made by simply dusting or by mixing with fine charcoal in small gauze bags.

4. The remedy can be injected into the bladder in cases of hematuria with as little danger as into the uterus, especially as tenesmus is lessened.

For this purpose, also, 1 to 16 per cent. solutions are available, whilst liq. ferri perchlor. can only be used 1 to 800.

5. Finally, ferripyrine can be administered in much larger doses per os than liq. ferri perchlor., and especially is indicated in melena neonatorum, apart from other hemorrhages of the stomach and intestines.

The exhibition should be made in three to five grain doses for children (eight grains is the average dose for adults), prescribed with sugar and menthol, fifteen parts sugar to one part menthol.

I intend to continue the use of ferripyrine and by these lines would draw the attention of colleagues to the specific action and advantages of the drug.

SEXUAL RELATION OF THE THYROID GLAND.

FISCHER, in a recent paper (*Lancet*), comments upon the relations between the thyroid gland and the female sexual organs, which have often been discussed since attention was directed to the fact

that goitre predominates in women—that from 80 to 90 per cent. of the cases occur in females. Myxedema, moreover, is met with in women in 86 per cent. of the cases. The same is true of Graves's disease, and in respect of sclerodermatic processes the proportion as between women and men is three to one. Swelling of the thyroid gland has been observed in puberty and at the commencement of the menstrual period. Freund found an increase of this gland during pregnancy in forty-five out of fifty cases, and Woltjer has described a case in which during pregnancy the trachea became soft and the goitre increased. Goitre increases during delivery, and decreases again some days afterward. Graves's disease also, if it develop during pregnancy, improves after delivery. It is doubtful whether the thyroid gland becomes larger during lactation, but in the climacteric period it undergoes atrophy. Goitre and phthisis seem to be incompatible, and phthisis is but rarely observed in the subjects of hypertrophied thyroid gland. Fischer next refers to the numerous theories as to the etiology of goitre: Morgagni supposed there was a communication between the thyroid gland and the larynx, and believed the trachea was moistened by this gland and phonation thereby facilitated. Some authors have suggested that this gland was a regulator of the brain, but Freund considers that it is in connection with the genitals through the sanguineo-vascular system. In the lower animals extirpation of the thyroid gland causes atrophy of the sexual organs, which is due, according to Hofmeister, to shriveling of the ovarian follicles. Hens with hypertrophied thyroid glands also lay larger eggs than those which have atrophied thyroids. Post mortem examination of a girl, aged eight years, who was affected with myxedema, showed that both ovaries were of the size usual at two years of age, and that they contained only a few follicles. The symptoms of Graves's disease depend in some degree on the condition of the patient's sexual development.—*Kansas Med. Jour.*

AN OPERATION FOR THE CURE OF INCONTINENCE OF URINE
IN THE FEMALE.

GILLIAM (*American Journal of Obstetrics*) reports four cures of aggravated cases of the above distressing complaint by a new operation: three occurring in his own practice, one in that of his colleague, Professor Thomas C. Hoover. The operation was suggested to Gilliam by an examination of a girl of eighteen years who had suffered from incontinence from infancy, and in whom he

found an anomalous band attached to the urethra near the meatus, and spreading itself over the muscles of the anterior aspect of the vulvo-vaginal junction. This was clipped with the scissors, and the incontinence immediately disappeared. In other cases he failed to find the band, and not having fully appreciated what he now considers the etiological factor of the condition, failed to cure the cases ; but, finally, after examining another patient, a girl of twenty-one, who had been through an infinity of treatment for incontinence, and failing to find any local cause, it occurred to him to free the urethra margins from the surrounding tissues. On placing her under an anesthetic, he found a membrane which occupied the position of the anterior segment of the hymen and was attached to the sides and under surface of the urethra. When put upon the stretch, it presented the appearance of wings. This membrane was excised, the excision was carried up along the urethra on either side for a distance of a third of an inch, and the raw surfaces closed by suture. The result was an immediate and complete cure. In Professor Hoover's case, there was a growth over the urethra, which was dissected out and resulted in a cure. Gilliam quotes another who has cured cases by making an incision on either side of meatus and introducing sutures parallel to the line of incision in such a way as to bring the line of union at right angles to that of the incision. The intention of this operation was to form a buttress of tissue on either side of the meatus so as to close it by mechanical pressure, but Gilliam believes that this operation, which was essentially that which he had performed, was effective as removing a source of reflex irritation, and not by a mechanical process. He quotes another case of extremely bad nocturnal enuresis in an adult in which his operation was equally successful.—*Med. Age and Kan. Med. Jour.*

SOCIAL PURITY AND MARRIAGE.

E. S. BULLOCK, New York, says (*N. Y. Polyclinic*) that new ideas and principles increase in number in a direct ratio to the lengthening age of the world. One which can be referred to the rapid spread of scientific knowledge among the people in general, and especially to the higher education of women, is the growing conviction on the part of the gentler sex that they should not receive into their arms the men aspiring to conjugal felicity who cannot bring to them a guarantee of freedom from diseases which, when existent, may menace the health of the wife and her children and

destroy the happiness which marriage should bring to all who participate in it. That great educator, the modern novel, its co-worker the problem play, and, last but not least, the higher education of women, have all been potent influences tending to take sexual relations from its place among the mysteries of life, from the darkness with which it has always been environed, and allow the clear sunlight of scientific knowledge to shine upon it. Such influences as these are to many maudlin occupants of the pulpit proofs of degeneracy ; or what they are pleased to term the impure spirit of the age. To the calm and careful thinking sociologist they are evidences of a wish to see the question settled. To end controversies is preëminently the spirit of the century in which we live, and what our sexual relations should be is but one of the problems of which we seek the solution. Knowledge is not impurity ; innocence which knows not its place in the world is degrading. Normal, healthful sexual intercourse is no more wrong than is the performance of any other purely physical act, and it only becomes wrong when performed in the face of social law. Our social system puts clearly defined limits upon sexual indulgence and proscribes license. Our intelligent women are waking to the fact that the social law was not made for women alone, but applies in all equity to the opposite sex as well.

A moral nature so finely developed that it will not permit its owner to enter into the marriage state, bearing the seeds of possible direful results to wife and family, is not common among men. Sometimes mistaken and pitiable marriages are the result of ignorance rather than of moral deficiency, but the family physician and the consultant gynecologist are no longer the only ones who know why such and such a wife is an invalid, or why such another one is sterile. Keen-sighted women are coming to understand these things. Victims and sufferers perhaps themselves, they are rising in defense of the daughter's health and happiness from the results of a life of lasciviousness antedating marriage on the part of the man who desires to share the conjugal bed.

From Paris, that star in the firmament of cities, as well as the cloaca of civilisation, comes the latest instance of this awakening on the part of thinking women. At a Woman's Congress recently held, resolutions were adopted to the effect that "all families must secure certificates of health from intended sons-in-law, in order to guard the daughters of the Republic from the risk of contagious or hereditary maladies in the aspiring fathers of a latter generation."

Medical men have accomplished much in promulgating the doctrines founded upon their work and study, and the world is bound to awaken to the importance of the subject when it understands that 15 per cent. of all diseases of women, excluding prostitutes, are caused by gonorrhea and its sequelæ. Still, and in spite of this, only a small proportion of the credit of educating upon these lines belongs to the medical profession. Medical literature is peculiarly barren of knowledge relating to sexual subjects. Medicine, like parents, leaves this as the one subject to be avoided.

Let us say all we can in encouragement of the women of France in their good work, and extend a welcome to the fast approaching time when the young couple starting out on the way of married life, come to each other with a clean bill of sexual health. It will be one great step toward the future marriage, which, like good life insurance, will be impossible without a certificate of freedom from hereditary or acquired disease.

REPORT OF A CASE OF CESAREAN SECTION.

GEO. HAVEN (*Boston Medical and Surgical Journal*, April 30, 1896, p. 436). The case reported was that of a patient twenty-two years of age, with a justo-minor pelvis of the following measurements: anterior superior spines eight inches, crests nine inches, external conjugate six and three-quarter inches, internal conjugate four and a quarter inches, true conjugate about three and a half inches. The patient was in labor from 9 o'clock on Tuesday morning until 7.45 the following morning; axis traction forceps were applied several times, but with no success, so, finally, the Cesarean operation, after the method of Säger, was performed. An uninterrupted convalescence followed.

DISEASED BREAST REPLACED BY LIPOMA.

THE *New York Medical Journal*, of January 30, 1897 (*Am. Jour. Surg. and Gynec.*), contains an account, taken from the *Archiv für Klinische Chirurgie*, of the removal of a diseased breast and the taking of a fatty tumor from the patient's back and grafting it into the cavity made by the excision of the mammary gland. A year later the lipoma still retained its original size, and had absolutely the fullness and appearance of the breast of the opposite side. The operation was done by Czerny, of Heidelberg.

Correspondence.

MONOPOLISTIC CONTROL OF MEDICAL LITERATURE.

To the Editor :

Sir—I regret exceedingly again to trespass upon your courtesy, but it seems impossible not to do so, if your readers are to have even a partially correct understanding of the facts in controversy. The replies and statements of Messrs. Wood & Co. with wearisome reiteration emphasise the assertion that I personally “injected myself” into the controversy and spoiled its assured settlement “to the satisfaction of all parties,” and that the refusal of Messrs. Wood & Co. to allow the use of quotations and cuts from their periodicals was after extended controversy, and after their long-suffering had been worn out by eighteen months’ exhaustion from the importunity of Mr. Saunders in asking for an excessive number of electros and “wholesale use of our facilities” (sic!), etc., etc. That this is utterly untrue the following letter will make plain. Note that the date is over one year ago :

WILLIAM WOOD & COMPANY,

Medical Publishers.

W. B. SAUNDERS,

NEW YORK, March 11, 1896.

925 Walnut street, Philadelphia. Pa.

Dear Sir—Your form letter addressed to the editor of the *American Journal of Obstetrics*, requesting two copies of the *Journal* to be sent you for use in the publication of your Year Book, has been handed to us for reply. Neither the *Journal of Obstetrics* nor the *Medical Record*, both published by us, consider that they are under any obligations whatever for such quotations as proposed by you, but the contrary. We are obliged, from the course pursued by various parties in the past, to say to you that both of these journals are copyrighted and everything in them protected by law. Quotations from either of them are not permitted for such use as proposed by you.

Respectfully yours,

WM. WOOD & CO.

By necessary inference this letter settles the inaccuracy of many other statements and insinuations in the published letters of Messrs. Wood & Co., that are too wearying to detail, and especially the following astonishing sentence: “We never refused any request of Mr. Saunders to abstract from our publications, nor, with one exception a long time ago, have we ever declined to allow him the use of cuts.”

To the charge also made that I do not give "the slightest acknowledgment of the benefits" received to authors and periodicals quoted, I would add that *by actual count* I find that in the three books under discussion, there are in all 437 credits to the *Medical Record* and the *American Journal of Obstetrics*. If there is any omission it is an oversight for which I am sorry, as it is at once a matter of pride, self-interest and duty to give proper journal-references and credits for all excerpts, abstracts and illustrations. He would be a strange editor who failed in this. To be charged with making "intentionally misleading statements" (anglicé, lies) by one who lives in such a very glazed house is illustrative of the humors and psychologic puzzles of a controversy that has doubtless over-much tired your indulgent good-will and that of others.

Cordially yours,

GEO. M. GOULD,

April 7, 1897.

119 S. 17th St., Philadelphia.

LETTER FROM MESSRS. WILLIAM WOOD & COMPANY.

NEW YORK, April 1, 1897.

To the Editor :

Sir—We notice that in your issue for April our letter of March 11th is headed "Reply of Messrs. William Wood & Co."

Our letter of that date is not a reply to Dr. Gould's communication, as can be seen by reading it, or to any of his letters; nor would we reply to them.

Also the opening line, which reads, "Referring to the foregoing communication of Dr. Gould, we beg to state that," etc., is not ours, but has been changed by someone in your office.¹

Our letter was an independent communication, explaining our course to the medical profession, and intended to be printed as such; not as a "reply" to anyone.

Sincerely yours,

WILLIAM WOOD & COMPANY.

1. The letter of Messrs. William Wood & Co., referred to, was addressed personally to the undersigned and not to the JOURNAL. As that was a bar to its publication we asked Messrs. Wood if they desired it published. They replied affirmatively, whereupon we changed the address and the opening sentence, to make it conform to the usual style of correspondence to appear in print, which in nowise affected its purport or meaning. As to the criticism regarding the heading, if it is not a "reply" to Dr. Gould we are at a loss to know what its object is. We might have headed it "Our New York letter," but we think the heading chosen was nearer correct. We exercised only our editorial prerogative in the premises and now publish the foregoing letters as a conclusion to the whole matter in so far as the JOURNAL is concerned.—WILLIAM WARREN POTTER.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITORS:

THOMAS LOTHROP, M. D. - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor:
284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXVI.

MAY, 1897.

No. 10.

ANNUAL COMMENCEMENT OF BUFFALO UNIVERSITY MEDICAL COLLEGE.

ALUMNI ASSOCIATION MEETING AND BANQUET.

THE fifty-first commencement exercises of the department of medicine of the University of Buffalo were held Tuesday, April 27, 1897. On the same day also the department of pharmacy held its tenth, and the department of dentistry its fifth commencement exercises. As usual on these occasions, the curators met in the forenoon to ratify the examinations and to legalise the recommendations of the faculty regarding candidates for degrees.

ALUMNI ASSOCIATION.

The alumni association held its twenty-third annual meeting in Alumni hall of the college building in the afternoon of commencement day.

The president, Dr. P. W. Van Peyma, of Buffalo, called the meeting to order at 2 o'clock p. m. About fifty graduates were present from different sections of the country representing nearly every class that had been sent out since the school was organised in 1846. Dr. A. G. Ellenwood, of Attica, class of '48, was the first to respond when the roll was called by years. Dr. Thomas D. Strong, of Westfield, class of '61, first president of the alumni association, was in attendance, besides many others who graduated in the earlier years. Then came the election of officers for the ensuing year, with the following result: President, Dr. D. A. Currie, of Englewood, N. J.; first vice-president, Dr. J. J. Lusk, of Warsaw; second vice-president, Dr. W. W. Potter, of Buffalo; third vice-president, Dr. M. A. Veeder, of Lyons; fourth vice-president, Dr. J. W. Putnam, of Buffalo; fifth vice-president, Dr.

W. R. Campbell, of Niagara Falls. Trustees : Drs. Joseph Fowler, Buffalo ; Julius Wenz, Lancaster ; H. P. Trull, Williamsville ; C. A. Wall, Buffalo, and W. C. Phelps, Buffalo. Executive committee : Drs. Albert T. Lytle, chairman ; H. G. Matzinger, secretary, and G. W. Wende, Buffalo, and the president of the association and secretary of the faculty *ex-officio*.

After the completion of the business session the following scientific program was carried out : Dr. P. W. Van Peyma, the retiring president, delivered the annual address. He was followed by Dr. Alfred Stengel, of the Pepper laboratory of the University of Pennsylvania, who read a paper on The anatomy and pathology of the red blood corpuscle. Drs. H. U. Williams, H. G. Matzinger and A. E. Woehner joined in the discussion of Dr. Stengel's paper. Other papers which were read were : Treatment of neurasthenia, by Dr. James W. Putnam, of Buffalo, which was discussed by Drs. J. G. Van Pelt, W. M. Baker and Bina P. Vandenberg ; Hypertrophy of the prostate, by Dr. William C. Phelps, of Buffalo, discussed by Drs. A. G. Ellinwood, J. G. Kelly and W. R. Palmer. Following the papers Dr. Herbert M. Hill and Dr. H. U. Williams, of Buffalo, gave a microscope lantern exhibit, projecting a number of interesting specimens.

EXERCISES AT MUSIC HALL.

The graduating exercises were held at Music hall at 8 o'clock in the evening, which was crowded long before the hour with an interested and fashionable audience. The classes of the several departments, in cap and gown (except the pharmacists), marched down the aisle promptly at the appointed hour to strains of inspiring music and greeted by the enthusiastic plaudits of 2,000 spectators.

The chaplain, Rev. Walter North, D. D., read from Ecclesiasticus, the 38th chapter, beginning : "Honor a physician with the honor due unto him, for the uses which ye may have of him ; for the Lord hath created him." After prayer and another interlude Dr. John Parmenter, secretary of the medical department, offered the names of the candidates for the degree of doctor of medicine, as follows :

Ayers, Lemuel DeLos, Tonawanda, Pa. ; Allen, Geo. S., Farmington, N. Y. ; Bauer, Eugene E., Owego, N. Y. ; Bacon, Chas. Bowman, New Lebanon, N. Y. ; Baker, Amos Treallee, Buffalo, N. Y. ; Busch, Frederick C., B. S., Buffalo, N. Y. ; Bair, Edmund A., Emporium, Pa. ; Barnsdall, J. Thornton, Buffalo, N. Y. ; Burns, Irving W., M. D., North Tonawanda, N. Y. ; Burt, Fred C., Belfast, N. Y. ; Barrett, Frederick J., Buffalo, N. Y. ; Comfort,

Clifford V., Ph. B., Rochester, N. Y.; Culver, Clifton W., Buffalo, N. Y.; Craig, Charles Smith, Hilton, N. Y.; Cummings, Carro Julia, B. Ph., Buffalo, N. Y.; Clarke, Clayton Reynolds, Olean, N. Y.; Cowper, Harold William, Buffalo, N. Y.; Crittenden, Frederick G., Phelps, N. Y.; Croff, J. Brainard, Batavia, N. Y.; Dodge, W. Lee, West Westfield, N. Y.; DeGroat, Herman K., A. M., Buffalo, N. Y.; Evans, W. I. C., Machias, N. Y.; Eddy, Loren L., Olean, N. Y.; Elliott, John George, Gasport, N. Y.; Fronczak, Francis E., A. M., L. L. P., Buffalo, N. Y.; Garratt, John Milton, Buffalo, N. Y.; Goff, A. P., Cameron Mills, N. Y.; Hummel, Edward E., Williamsville, N. Y.; Hays, Mary J., Kushequa, Pa.; Hunt, Fred C., Sinclairville, N. Y.; Hendee, Lawrence, Buffalo, N. Y.; Halleck, Margaret S., A. B., Buffalo, N. Y.; Hoke, William A., Morris, N. Y.; Kiepe, Edward John, Ph. G., Buffalo, N. Y.; Keeler, J. Grant, Rochester, N. Y.; Kerr, A. T., Jr., B. S., Buffalo, N. Y.; Leslie, Wm. G., Rochester, N. Y.; Loughlen, John J., Olean, N. Y.; Leary, James H., Henrietta, N. Y.; Lock, Frank E., Buffalo, N. Y.; Loop, Ross G., Elmira, N. Y.; Love, Frank W., B. S., Buffalo, N. Y.; LaWall, Elbert W., Corning, N. Y.; Lansing, Levinus A., Buffalo, N. Y.; McIntosh, George, Seaforth, N. Y.; MacKenzie, Simon S., Caledonia, N. Y.; MacPherson, Marjory J., N. Tonawanda, N. Y.; McWayne, E. P., Sackett's Harbor, N. Y.; Mastin, Charlotte E., Wellsboro, Pa.; Means, George Sherwood, Geneva, N. Y.; Mendlein, Fred A., Dansville, N. Y.; Minard, George H., Buffalo, N. Y.; O'Leary, James F., A. B., Hartford, Conn.; Palmer, Wm. E., York, N. Y.; Palmer, Wm. A., Ph. G., Elmira, N. Y.; Potter, Will H., Springville, N. Y.; Phillips, William L., Buffalo, N. Y.; Parker, Burt T., Buffalo, N. Y.; Potter, Alice May, Ithaca, N. Y.; Remington, Alvah Childs, West Shelby, N. Y.; Rosengren, Charles J., Buffalo, N. Y.; Ross, Fred Ernest, Erie, Pa.; Ryle, John J., A. B., Stamford, Conn.; Soeh, Albert F., Smith Mills, N. Y.; Turk, George R., Clarence, N. Y.; Trotter, Richard, Ph. G., Buffalo, N. Y.; Wickens, Vallance A., A. B., Rochester, N. Y.; Witt, Ervin W., Watertown, N. Y.; Walker, Townsend, Bath, N. Y.; Williams, C. S., Cayutaville, N. Y.; Woolston, Clayton S., Gaines, N. Y.; Westlake, Carolyn Louise, Le Roy, N. Y.

The Hippocratic oath was administered by Dr. Matthew D. Mann, the dean of the medical faculty. Then the candidates filed upon the stage and the chancellor, Hon. James O. Putnam, conferred the degrees in these words :

"By virtue of the authority in me vested as chancellor of the University, I confer upon each of you, individually and severally, the degree of Doctor of Medicine, in token of which I give you this diploma."

The custom of the medical department is to place the names of all those who have made an average mark of 90 per cent. or

over during their course on the honor roll. The following names were so placed: Amos Trevallee Baker, A. P. Goff, Fred Ernest Ross, Frank E. Lock, Margaret S. Halleck, A. B.; Carro Julia Cummings, B. Ph.; Lawrence Hendee, Eugene E. Bauer, Albert F. Soch, Frank W. Love, B. S.

The following names, with the titles of their graduating theses, were announced as deserving honorable mention: Cultivation of the gonococcus, by Frederick C. Busch; Membranous colites, by Miss Carro Julia Cummings; Plica polonica, by Francis E. Fronczak, A. M., LL. P.; Multiple serositis, by Miss Margaret S. Halleck; Salivary digestion, by Edward John Kiepe, Ph. G.; The fate of animal sutures in the tissues, by Lawrence Hendee; The common reagents for the detection of albuminuria, by John M. Garratt; A plea for the Greek ideal of beauty, by Alice May Potter; Paranoia, by Ross G. Loop; The comparative anatomy of the cecum, by Abram T. Kerr; A microscopic study of the early development of the embryo, by Frank W. Love.

Dr. John R. Gray, secretary of the department of pharmacy, presented the candidates for the degree of Ph. G., which was conferred by Chancellor Putnam upon a class numbering forty-six, including four who received the degree of Master in Pharmacy and two who met all requirements excepting that of age, and who merely received certificates of examination.

Dr. A. P. Southwick presented the names of sixty-eight dentists upon whom the degree of D. D. S. was conferred by Chancellor Putnam.

After a musical selection Prof. Joseph P. Remington, Ph. M., F. C. S., dean of the Philadelphia College of Pharmacy, addressed the graduating classes. In a scholarly effort Dr. Remington traced the growth of modern methods of instruction in pharmacy, which in this country had its origin at Philadelphia, in 1821, as the result of a chance meeting and conversation between Peter Lehman and Henry Troth, two esteemed druggists in that city. The speaker gracefully referred to the other branches of curative science and art represented in the classes before him, giving each friendly words of wise suggestion and advice. A benediction by the chaplain closed the formal commencement exercises of 1897.

ALUMNI BANQUET.

The annual banquet of the alumni association was given at the Ellicott club. A few minutes after 11 o'clock orchestral strains announced everything in readiness, when the faculty and alumni

marched into the spacious dining-room of the Ellicott club—the men from one side and the women from the other—taking seats at small tables in groups according to their own assortment. N. W. Wilson, Jacob Otto, W. C. Gerber, George Staniland, Harvey Albertson and Guy Boughton, members of the class of '98, acted as ushers. At a large round table, handsomely decorated, sat the president of the alumni, Dr. P. W. Van Peyma, Rev. Walter North, D. D., Dr. M. D. Mann, Prof. Remington, of Philadelphia, Dr. Thomas D. Strong, of Westfield, Dr. Roswell Park, Dr. H. M. Hill, Dr. Charles G. Stockton, Dr. John Parmenter, Dr. Woods Hutchinson and Dr. William Warren Potter. After an excellent service, the following toasts were announced by Dr. Van Peyma, who announced each speaker in bright, witty and appropriate sentences: State medical examinations for license to practise, Dr. William Warren Potter, of Buffalo; The patient, Dr. Charles H. Richmond, of Livonia Station, N. Y.; 1897, Dr. Frederick C. Busch, of Buffalo; Me judice, Dr. Maud J. Frye, of Buffalo; Newspaper medicine, Dr. Woods Hutchinson, of Buffalo.

When the president in the small hours announced the meeting as over, it was the general opinion expressed by many who have frequently attended these annual gatherings that 1897 bore off the palm. For the successful management of the alumni meeting, afternoon and evening sessions, the executive committee, under the able chairmanship of Dr. Albert T. Lytle, is entitled to all praise.

TOPICS OF THE MONTH.

THE College of Agriculture of Cornell University has undertaken to assist, free of expense, all teachers who wish to introduce nature-study into their schools. The idea of seeing familiar things in a new light is a valuable factor in education. For instance, how many people can explain, so that a child can understand, why water puts out fire, why some young squash plants bring their shells out of the ground on their backs and others do not; or show the difference between a leaf-bud and a fruit-bud of the apple; or tell from whence all the house flies come? The world is full of such common things, about which people do not inquire. Yet, such subjects can be made very interesting to children and they can be taken up in the schools, not as an added recitation, but as a rest exercise once or twice each week to relieve the monotony of the school-room and later be made the theme for a language exercise. Here are two important faculties that may be brought into exer-

cise,—accurate observation and the power of expressing definitely what is seen. Parents and teachers interested in this work are asked to send their address for more detailed information to the chief clerk, College of Agriculture, Ithaca, N. Y.

CONSUMPTION caused 13,257 deaths in this state last year, a greater number than occurred from any other single cause. According to the annual report of the state board of health, there were 200 deaths in each 100,000 of the population, and it further shows that the total number of deaths for the year was 124,000, making the death-rate for the state 18.50 in each 1,000 of population. From the foregoing figures it ought not to be difficult to make people understand how important it is to adopt stringent preventive measures with reference to the spread of consumption. Spitting in public places is a filthy habit, but it is also a dangerous one, as the germs of infectious diseases like consumption are thereby spread to an amazing extent. Particles of dried sputum are taken up by the air and wafted hither and yon, easily finding a soil favorable to their propagation and growth. By all means let us have an ordinance, and that quickly, to suppress this dangerous custom.

THE health department of Buffalo has scored an important victory within the past month in the conviction of two physicians for violation of the ordinance relating to reporting contagious diseases. If the public is to be protected against the spread of contagious disease, stringent measures are necessary, requiring that any such shall be reported promptly to the health department. Failing to comply with such important laws, as in the present instances, should be met with swift conviction and sudden punishment. This is a feature of public health protection that admits of no middle-grounded action, and the city health commissioner is entitled to great credit in securing convictions in the cases referred to in the face of many discouragements and in spite of an adverse legal opinion.

THE bubonic plague at Bombay is reported to be rapidly waning. At the end of December it reached its climax with 1400 or more deaths a week. It has now fallen to less than one-third of that mortality. The city of Bombay is undergoing a thorough sanitary renovation; 130,000 dwelling houses were condemned, 109 ordered rebuilt, tiles removed from 1,027, floors dug up in 492, several

hundred were lime-washed, 299 ordered vacated and three destroyed by fire. Indeed, the infected quarter is being dealt with in a fashion beyond the criticism of the most advanced sanitarian. It is doubtful if a more satisfactory sanitary achievement has ever been made before, and it reflects the highest credit on the administrators of sanitary law in that plague-stricken city.

THE Murphy button has received recent further strong foreign endorsement. A press dispatch to the *New York Tribune*, dated Berlin, April 24, 1897, says : "At the Surgical Congress, in session here, Professor Marwedel, of Heidelberg, strongly recommended the general adoption of the American Murphy button in operations of the intestines and cited ninety-seven successful cases in his own practice."

THE Philadelphia Polyclinic and College for graduates in medicine has set apart a room in the Polyclinic hospital for the free care of physicians who may become ill. The conditions which surround admission to its benefits are : that the applicant must be a member of the mutual aid association of the Philadelphia county medical society; that the officers of the association must first certify that the applicant's circumstances require such concession in regard to hospital charges; that the rules of the hospital in other respects in regard to the admission and duration of stay of patients be observed; and that the room may be used for other patients at regular rates when it is not occupied by a member of the association named.

THE ordinance against spitting in street cars is being enforced in Philadelphia, where lately a passenger has been arrested and fined \$5 for persistently violating it, though requested by the conductor several times to desist. In other near cities, notably Rochester and Scranton, the subject is engaging attention and means are being discussed or adopted to reform the evil of spitting in public places. In Rochester several persons have been fined for spitting on the sidewalks. In Scranton the newspapers are urging the passing of an ordinance which shall prevent the further exhibition of this filthy and dangerous practice. We hope to see a similar wholesome ordinance in Buffalo and its equally thorough enforcement. Too much attention to cleanliness cannot be paid in the street cars, where all sorts and conditions of people ride every day in the year.

Personal.

DR. H. C. LEONHARDT has removed from Tonawanda to 228 Goundry street, North Tonawanda, N. Y.

DR. JAMES F. W. ROSS, the distinguished abdominal surgeon of Toronto, has been elected president of the Toronto Athletic Club.

DR. MARTHA F. CAUL, of Buffalo, has removed from 817 West avenue to 149 Franklin street. Hours: 8-10 A. M., 2-3 and 7-8 P. M. Telephone, Seneca 887.

DR. C. J. PATTERSON, formerly of Buffalo, has been appointed junior physician at the Manhattan State Hospital. This appointment is made from the medical civil service list.

DR. HOBART AMORY HARE, professor of therapeutics and materia medica at the Jefferson Medical College, Philadelphia, has been appointed consulting therapist to the well-known manufacturing chemists, Messrs. Parke, Davis & Co., Detroit. All questions relating to the practical value of new and old remedies and to the relative merit of various preparations, will be referred to Dr. Hare for an opinion.

DR. NEWTON L. BATES, medical director United States Navy, will be stationed at Washington for the coming four years and is announced as the president's physician. Dr. Bates is an alumnus (class of '61) of the medical department of the University of Buffalo, and in the same year was commissioned assistant surgeon in the navy. President McKinley is fortunate in his selection of a medical adviser.

Obituary.

DR. LEROY MCLEAN, of Troy, N. Y., died at his residence in that city April 23, 1897, aged 66 years. He received his preliminary education at the Washington Academy, Salem, N. Y., and at the Union village academy, Greenwich, N. Y. He received his medical degree at the Albany Medical College in 1855, was one year house physician at Albany hospital and for four years resident medical superintendent of Marshalls' infirmary, Troy. On the breaking out of the civil war he entered the military service and was commissioned assistant surgeon of the second regiment N. Y. Vols., with rank from May 13, 1861. He was promoted to be surgeon of the same regiment September 30, 1861, and was mustered out with

his regiment May 26, 1863. He afterward reëntered the army as surgeon United States Vols., and at the close of the war returned to the practice of his profession at Troy, turning his attention almost exclusively to surgery. He went to Europe in 1866, where he spent a year in study and observation. He was a member of the Medical Society of the County of Rensselaer, of the Medical Society of the State of New York and of the American Medical Association. For many years he was attending surgeon to the Troy hospital and he attained a reputation as one of the foremost surgeons in his region of country. He was a companion of the Military Order of the Loyal Legion and a highly esteemed citizen.

Society Meetings.

THE National Confederation of State Medical Examining and Licensing Boards will hold its seventh annual meeting at the Hotel Walton, Philadelphia, beginning at 10 o'clock A. M., Monday, May 31, 1897, under the presidency of Dr. William Warren Potter, of Buffalo. The following program has been arranged by the secretary, Dr. A. Walter Suiter, of Herkimer: Papers. (1) Some practical experience with, and results of, the medical law of Pennsylvania, by William S. Foster, Pittsburg. (2) The need for exact information as to equipment, methods and requirements of our medical schools, by J. N. McCormack, Bowling Green, Kentucky. (3) Address by Professor J. W. Holland, M. D., dean Jefferson Medical College, Philadelphia. (4) Remarks on medical practice laws in the new northwest, by C. K. Cole, Helena, Montana. (5) The Alabama system, by W. H. Sanders, Montgomery, Ala.

There will be an address of welcome by Dr. A. H. Hulshizer, of the Pennsylvania state board of medical examiners, and a response thereto by vice-president Charles A. L. Reed, of Ohio; a report of the committee on minimum standards; report of the secretary and treasurer; annual address of the president; and miscellaneous and executive business will be transacted.

A cordial invitation is extended to all members and ex-members of state medical examining boards, and to physicians, sanitarians and educators, who are friendly to state control in medicine and to the advancement of the standard of medical education in the United States, to attend the meeting and participate in its proceedings.

THE American Medical Association will hold its semicentennial meeting in Philadelphia on the 1st, 2d, 3d and 4th of June, 1897. This meeting bids fair to surpass, in the character of the entertainment, the scientific papers and the number in attendance, any meeting which has heretofore been held. The committee in charge has been able to obtain large and roomy places of meeting for the general and section meetings, all within a single block and within very short walking distance or immediately adjacent to the largest and most comfortable of the Philadelphia hotels.

For the week preceding and following the meeting the committee of arrangements has also arranged for clinical courses, which will be open without charge to all physicians who may visit the city at that time. These courses cover every branch in medicine and its specialties and will afford visitors the opportunity of seeing the active clinical work of all the great teachers of Philadelphia, which is now, as it has been for so many years in the past, in every respect one of the medical centers of the United States.

On the second day of the meeting, exercises to commemorate the founding of the association will be held under the supervision of the committee on anniversary exercises, Dr. John B. Roberts, chairman. The committee has invited the presidents of state medical societies and the presidents of state medical examining boards to participate in the ceremonies.

THE Buffalo Academy of Medicine held meetings during the month of April as follows :

Section on Surgery.—Tuesday evening, April 6th, program : Rectal prolapse—rectopexy, by Dr. Herman Mynter ; Exhibition of cases : gastrostomy, Witzel's method, by Dr. Eugene Smith.

Section on Medicine.—Tuesday evening, April 13th, program : Physiology and pathology of cycling—nervous system, by Dr. Herman Matzinger ; Heart and lungs, by Dr. John H. Pryor ; Digestive system, by Dr. Chas. G. Stockton ; Pelvic Viscera, by Dr. M. D. Mann.

Section on Pathology.—Tuesday evening, April 20th, program : Recent progress in cellular biology, illustrated, by Professor Charles Wright Dodge, of Rochester University.

Section on Obstetrics and Gynecology.—Tuesday evening, April 27th, program : Abortion, etiology and pathology, by Dr.

C. S. Jewett ; Diagnosis and treatment, by Dr. C. C. Frederick ; A plea for uterine curettage as a routine measure after abortion before the third month, by Dr. S. Goldberg

THE American Medical Publishers' Association will hold its fourth annual meeting at Philadelphia, May 31, 1897, under the presidency of Dr. Landon B. Edwards, editor and publisher of the Virginia semi-monthly, of Richmond. The secretary, Mr. Charles Wood Fassett, of St. Joseph, Mo., invites all who desire to read papers on that occasion to send the titles thereof to him at an early day. The membership fee, \$5.00, is now payable and, likewise, should be sent to Mr. Fassett.

THE American Public Health Association will hold its twenty-fifth annual meeting at Philadelphia, October 26-29, 1897, under the presidency of Dr. Henry B. Horlbeck, of Charleston, S. C. The secretary, Dr. Irving A. Watson, of Concord, N. H., has issued a preliminary announcement giving the topics for consideration and general information concerning the meeting. Dr. Benjamin Lee, 1532 Pine street, Philadelphia, is the chairman of the local committee of arrangements.

THE American Institute of Homeopathy will hold its next annual meeting at Buffalo, June 23-30, 1897. The chairman of the committee of arrangements, Dr. A. R. Wright, of this city, has issued a preliminary circular giving details of the work of his committee in preparing for the meeting, and which affords much important information for the visitors. Dr. J. T. Cook is secretary of the local committee.

THE Lake Erie Medical Society held its regular meeting at Dayton, N. Y., April 14, 1897, under the presidency of Dr. A. D. Lake, of Gowanda. Among other proceedings Dr. J. G. Thompson, of Angola, read a paper on the Management of abortion, that was discussed by Drs. Lattin, Ward and Beardsley.

THE Missouri State Medical Association will hold its fortieth annual session at St. Louis, May 18, 19 and 20, 1897, under the presidency of Dr. J. H. Duncan, of St. Louis. A preliminary announcement has been sent out that includes a large number of interesting titles.

THE American Academy of Medicine will hold its twenty-second annual meeting in parlor C of the Continental Hotel, Philadelphia, on Saturday, May 29 and Monday, May 31, 1897, under the presidency of Dr. J. C. Wilson, of Philadelphia. The secretary, Dr. Charles McIntire, of Easton, Pa., has sent out a preliminary announcement that includes a large number of valuable titles. It is anticipated that this meeting will be one of the largest and most interesting ever held by the Academy.

THE Congress of American Physicians and Surgeons, composed of some of the national special societies, will hold its fourth triennial session at Washington, May 4-6, 1897, under the presidency of Dr. William H. Welch, of Baltimore. All physicians are invited to attend the meetings of the congress, but only those may register who are members, specially invited guests, or visitors accredited through the constituent societies.

THE Medical Society of the State of Wisconsin will hold its fifty-first annual meeting at Racine, May 5, 6 and 7, 1897, under the presidency of Dr. D. O. Reynolds, of Lake Geneva. The secretary, Dr. Charles S. Sheldon, has sent out a classified program, embracing all the various branches of medicine. The anniversary banquet will close the proceedings on the afternoon of the third day at the Hotel Racine.

THE American Medical Editors' Association will hold its next annual meeting at Philadelphia, June 1, 1897, under the presidency of Dr. Hobart A. Hare, of that city. The association will hold its annual dinner at the Hotel Aldine, when a large attendance is expected. Dr. H. Burt Ellis, of Los Angeles, Cal., is the secretary.

THE Association of American Medical Colleges will hold its next annual meeting at the Hotel Walton, Philadelphia, Monday, May 31, 1897, at 10 o'clock A. M., under the presidency of Dr. J. M. Bodine, of Louisville. A new constitution will be acted upon and other important business transacted.

THE Medical Society of the State of Pennsylvania will hold its forty-seventh annual meeting at Pittsburg, May 18-20, 1897. An interesting program has been issued and the officers are preparing for a full attendance of members.

College and Hospital Notes.

BELLEVUE Medical College and the New York University Medical College have consolidated their interests, the regents at Albany have sanctioned the fusion, and the united schools will hereafter be known as The New York University—Bellevue Hospital Medical College. The properties of both schools will be united and it is understood that the teachers in both will resign, leaving the council free to choose a new faculty from all available sources. It is hardly to be believed, however, that the council will find it necessary to go outside of the faculties of the two schools to supply a superb group of teachers for the reconstructed and consolidated school.

THE medical department of Niagara University will conclude its college year May 12, 1897. The alumni association will meet at the college building on that day, at 10.30 A. M., and hold both a morning and an afternoon session. An interesting program has been arranged. The commencement exercises will be held at the Star theater in the evening at 8 o'clock. Prof. John A. Miller, in behalf of the faculty, will deliver the valedictory, and Rev. F. S. Fitch, of Buffalo, will give the charge to the graduates. The alumni banquet will, as usual, follow the commencement exercises.

THE College of Physicians and Surgeons, at Chicago, has recently become the medical school of the University of Illinois. Thus, one by one, the creditable medical colleges are attaching themselves to universities. The personal or individual medical school will soon be a tradition.

Book Reviews.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M. D., New York City. In twenty volumes. Volume X. Diseases of the Nervous System. New York: William Wood & Co. 1897.

The excuse for such a monumental work is to set forth the present view of the profession on all questions pertaining to medicine. The articles should not represent a given writer's view to

the exclusion of other authorities. This being an encyclopedia we look for completeness.

Joseph Collins, of New York, has written most clearly and admirably on diseases of the brain. He has discarded the view that cerebral anemia and hyperemia are clinical entities and has very properly omitted their consideration.

His pages on localisation are up to date and show very clearly the debatable ground is still very large, as the following quotations will show, viz. :

The seat of representation for the trunk muscles is not very well known.

The anatomical limitations put upon the face area by different observers vary considerably.

It is very *probable* that the primary visual center occupies only the medial side of the occipital lobe.

The conclusions of physiologists and of clinicians are not in entire accord as to the cortical localisation of the auditory center.

The seat of the cortical center for smell is not yet satisfactorily determined.

The alleged position of the center for the sense of taste is such that experimental evidence of its existence is difficult to obtain.

Localisations in the white substance of the brain cannot be made with anything approaching the accuracy of that of cortical localisation.

Localisation in the optic thalamus is very uncertain.

These quotations are made to show the fairness of the author. His discussion of diseases of the brain is thoroughly done, yet we must criticise its tendency to assume too much on the intelligence of the reader. Authors should be definite in their directions for treatment. Especially in dosage should directions be explicit in a work of this character. Thus, on page 430, the directions for treatment of syphilitic meningitis include such careless directions : iodide of potassium should be given in large doses. Just what is meant should be stated, that the student may know what the authority he quotes considers a large dose.

Sachs, of New York, discusses brain tumors in fifty well-written pages. He still includes cerebellar tumors in the category of inoperable tumors. He is hopeful that with improved methods of operating, the records of the future will be an improvement on that of the past.

The editor was wise in selecting Féré, of Paris, to write upon hysteria, epilepsy, chorea and the spasmodic neuroses. No better descriptions in the same space could be asked for. The only regret is that the bibliography is almost entirely French. This is unfortunate and needless. American medical literature is too rich to be neglected.

The last 100 pages of the book contain good articles on neurasthenia, by Dana, of New York; disorders of speech, by Pershing, of Denver; disorders of sleep, by Sanger Brown, of Chicago. They are good, but contain nothing noteworthy.

J. W. P.

A SYSTEM OF PRACTICAL MEDICINE. By American authors. Edited by ALFRED LEE LOOMIS, M. D., Late Professor of Pathology and Practical Medicine in the New York University, and WILLIAM GILMAN THOMPSON, M. D., Professor of Materia Medica, Therapeutics and Clinical Medicine in the New York University. To be completed in four imperial octavo volumes, containing from 900 to 1,000 pages each, fully illustrated in colors and in black. Vol. I. Infectious diseases. Just ready. Vol. II. Diseases of the respiratory and circulatory systems, and of the blood and kidneys. In press. Vol. III. Diseases of the digestive system, of the liver, spleen, pancreas and other glands; gout, rheumatism, diabetes and other constitutional diseases. In active preparation. Vol. IV. Diseases of the nervous system and of the muscles; diseases of doubtful origin, insolation, Addison's disease, etc. In active preparation. Per volume, cloth, \$5.00; leather, \$6.00; half-morocco, \$7.00. Philadelphia and New York: Lea Brothers & Co., Publishers.

The fashion of encyclopedic medical literature seems to have become pretty well established. It is a fashion that has its advantages and disadvantages. On the one hand, authors of monographs are enabled to speak from a large experience in that branch of medicine to which they may have devoted special study; on the other, a work constructed on these lines is liable to lack that uniformity and consecutiveness of thought and expression, and withal that absence of repetition that a treatise by a single author is more apt to possess.

This treatise was begun by the late Dr. Alfred L. Loomis, who associated himself with William Gilman Thompson in the editorship of the treatise. Since the death of Dr. Loomis, January 23, 1895, Dr. Thompson has carried on the work as sole editor-in-chief. It is doubtful if any man could have been more appropriately chosen for this office than Dr. Thompson. His longtime intimacy with Dr. Loomis, his thorough knowledge of the latter's methods and plans, and withal his own skill as a physician and eminence as a teacher, pointed him out as one specially fitted to conduct this great task to completion.

In the preparation of this comprehensive system of medicine the editors have been fortunate in the choice of contributors. They have not only selected men of conspicuous eminence in the several departments pertaining to medicine, bacteriology, pathology, state medicine, hygiene, and in several specialities, but they have also been well distributed as to geography, so that the system represents all parts of the United States.

The first volume contains the names of nineteen eminent clinicians and teachers who share authorship in its production and who have presented their several monographs in comprehensive, dignified and concise style, quite in keeping with the necessities of the present day and age. It is devoted to the consideration of infectious diseases, and is undoubtedly the most comprehensive exposition of these maladies that has been published in the United States,

if not in the world. There are 950 pages of the treatise proper, besides an index of thirty-five pages, the latter double-columned. There is great economy of expression in these pages, so that they contain more material than is usually found in the same amount of space. References in copious foot-notes abound throughout the volume, enabling the reader to look up a quoted author in his original tongue and publication.

Finally, we may with propriety allude to the mechanical execution of the book. It is printed in heavy-faced type, on well-finished book paper, and bears the artistic finish that characterises every book that issues from Mr. Dornan's well-ordered presses under the supervision of Lea Brothers & Co. Illustrations and charts have been introduced wherever necessary to elucidate the text, some of which are in colors and nearly all of artistic excellence.

We have thought it quite unnecessary to present an analysis of the different subjects treated in this volume. That seems to be a method wholly uncalled for at the present time, the principal object of which would seem to be to display the erudition of the reviewer. A brief description of the scope and make-up of the work is quite sufficient to enable our readers to judge of its merit.

LECTURES ON RENAL AND URINARY DISEASES. By ROBERT SAUNDBY, M. D., Edin., F. R. C. P., Lond., Emeritus Senior President of the Royal Medical Society; Fellow of the Royal Medico-Chirurgical Society; Professor of Medicine in Mason College, Birmingham, etc., etc. With numerous illustrations. Second edition. Small 8vo, pp. xii.—434. Philadelphia: W. B. Saunders. 1897.

This book represents a union of the author's lectures on Bright's disease published in 1889, and his lectures on diabetes published in 1891, to which he has added a section on miscellaneous renal diseases in order to make the book more complete as a work of reference. Saundby is an interesting writer and is thoroughly familiar with his subject. He is recognised as authority on renal diseases in every quarter of the globe, and this present work, in its enlarged and improved form, will be sought by every physician who must needs supply himself with the latest and best teaching on the subjects with which it treats.

OVER THE HOOKAH. The Tales of a Talkative Doctor. By G. FRANK LYDSTON, M. D., Fellow of the Chicago Academy of Medicine, the Southern Surgical and Gynecological Association, and the American Academy of Social and Political Science; Professor of Criminal Anthropology in the Kent College of Law. Illustrated, from the author's designs, by Mr. C. Everett Johnson. Chicago: Fred Klein Co. 1896.

This book is an interesting grouping of poetry, prose and art, that will serve to entertain many a weary doctor fortunate enough

to possess it. The author is well known to the medical profession of the United States as a "prince of good fellows" and as a scientific physician.

We cannot attempt to speak in detail of the stories herein told, but in the main they are of a character that appeals to the intelligent mind, are restful and mirth-provoking, and cannot fail to be acceptable to a profession that gets too little rest and is vastly overworked. We desire to speak in the highest terms of the illustrations, many of which betray high artistic conception in design and some are exceedingly well executed. On the whole, the book presents an excellent appearance, yet it lacks a finish that Putnam or Dornan would have given it.

AUTOSCOPY OF THE LARYNX AND THE TRACHEA. (Direct examination without mirror.) By ALFRED KIRSTEIN, M. D., Berlin. Authorised translation (altered, enlarged and revised by the author,) by MAX THORNER, A. M., M. D., Cincinnati, O., Professor of Clinical Laryngology and Etiology, Cincinnati College of Medicine and Surgery: Laryngologist and Aurist, Cincinnati Hospital, etc. With twelve illustrations. One volume, 12mo. pp. xi.—68. Philadelphia: The F. A. Davis Co., Publishers. 1897.

In this little book will be found all that is known in regard to this somewhat novel method employed in the diagnosis and treatment of diseases of that portion of the upper air-tract called the larynx and trachea. Kirstein is an enthusiast on the subject of making direct examination and treatment of the larynx and trachea without the aid of a mirror, and has devised a number of instruments with that end in view. The translator, who has done his part of the work well, is also a believer in this method. We are inclined to the belief that its practicability is limited; nevertheless, it is an additional means of diagnosis and treatment that should be appealed to in suitable cases.

ARTIFICIAL ANESTHESIA. A Manual of Anesthetic Agents and Their Employment in the Treatment of Disease. By LAWRENCE TURNBULL, M. D., Ph. G., Aural Surgeon to the Jefferson Medical College Hospital, Philadelphia; late Honorary President to the Otolological Subsection of the British Medical Association and of the Section of Laryngology and Otology of the American Medical Association. Fourth edition, revised and enlarged, with illustrations. Duodecimo, pp. 550. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1896.

It is near twenty years since the first edition of this work was published. It had its origin in a report for a medical society and was subsequently enlarged to book-form to meet a demand on the part of the profession for a handbook on the administration of anesthetics. It is six years since the third edition was sent out. This having become exhausted, the publishers appropriately determined to issue this fourth edition in the year 1896, which was the fiftieth anniver-

sary of the discovery and introduction of ether. This, the author says in his preface, is the one systemic anesthetic which has proved during all these years the most available and freest from danger.

This manual contains full directions for the administration of the several anesthetics, a description of the various inhalers, and methods for resuscitation in case of threatened danger, to which is added a short chapter on the legal responsibility of physicians in the administration of anesthetics. Local anesthesia is fully discussed and formulæ for local anesthetics are given. It is a book that every surgeon should possess and every anesthetist study.

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION. Volume XIV. Edited by DE FOREST WILLARD, A. M., M. D., Ph. D., Recorder of the Association. Printed for the association. For sale by Wm. J. Dornan, Philadelphia. 1896.

This is one of the largest and best volumes yet published by this distinguished association. It contains 742 pages, including many illustrations of value. The papers and discussions of this association are noted for their scientific excellence. At this meeting tuberculosis formed the central feature of interest and was presented in papers by Drs. N. Senn, A. Vander Veer, Robert Abbe, George R. Fowler, De Forest Willard, J. McFadden Gaston and George W. Gay. A paper on Susceptibility and Immunity, with special reference to surgical cases, was presented by Dr. Roswell Park, of Buffalo. An exhaustive paper on the Surgical peculiarities of the negro, was presented by Dr. Rudolph Matas, of New Orleans. The volume is executed in Mr. Dornan's best style, though we would enjoy it better if the edges were cut.

THE MICROSCOPE AND MICROSCOPICAL METHODS. By SIMON HENRY GAGE, Professor of Microscopy, Histology and Embryology in Cornell University and the New York State Veterinary College, Ithaca, N. Y. Sixth edition, rewritten, greatly enlarged and illustrated by 165 figures in the text. Ithaca, N. Y.: Comstock Publishing Co. 1896.

The appearance of a new edition of Prof. Gage's admirable work on microscopy and histology is evidence of the ever-gaining popularity of this treatise. Started in a humble way it has grown into a volume of some proportion and has kept pace with the latest thought and investigations in the science of which it treats. The figures have been increased from 103, in Volume V., to 165, including the device described by Dr. Krauss, of Buffalo, for marking objectives on a revolving nose-piece. The chapters on photomicrography have been revised and extended and are now quite complete.

The new edition deserves even more of the kind things said of previous editions and will, no doubt, become exhausted in a short time.

PRINCIPLES OR GUIDES FOR A BETTER SELECTION OR CLASSIFICATION OF CONSUMPTIVES, amenable to high altitude treatment and to the selection of patients who may be more successfully treated in the environment to which they were accustomed previous to their illness. By A. EDGAR TUSSEY, M. D., Adjunct Professor of Diseases of the Chest in the Philadelphia Polyclinic and School for Graduates in Medicine and Consulting Physician to the central branch of the Y. M. C. A. Gymnasium. Fifteenth and Chestnut streets. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1896.

The treatment of consumption in high altitude is set forth in this book with considerable argumentative force. The style of the author is somewhat flowery, but he is admittedly a conscientious student of his subject, and what he has to say is worthy of consideration. The tendency now is toward the isolation of consumptive patients, and experience has shown that the high altitude of the Adirondack region exercises a beneficial and sometimes even a curative influence upon the malady. To those interested in a study of the subject from the standpoint of the author, his book will be regarded in acceptable light.

HOW TO LIVE LONGER AND WHY WE DO NOT LIVE LONGER. By J. R. HAYES, M. D., Medical Examiner Bureau of Pensions, Department of the Interior, Washington, D. C.; late Surgeon United States Volunteers; late Medical Director Department of the Potomac, G. A. R. Philadelphia: J. B. Lippincott Co. 1897.

The unusual title here offered will attract many a reader who probably would pay very little attention to its subject-matter in ordinary dress and with a commonplace name. Dr. Hayes portrays a ripe scholarship and an easy style in dealing with his subject. He teaches us how to let good digestion wait on appetite, but particularly to be commended are his chapters on alcohol and tobacco. It is a little volume that may be well allowed to grace everybody's library and its teachings are such as to commend it in a special way to the young.

THE YEAR-BOOK OF TREATMENT FOR 1897. A critical review for practitioners of medicine and surgery. Crown octavo, 488 pages. Philadelphia and New York: Lea Brothers & Co. 1897.

This annual visitor is always welcomed by the profession because, first, of its convenient size and, second, because of its form, general arrangement and methodical selection of its material. It is a critical condensation of the progress made during 1896 in all the branches of medicine and surgery that have practical interest to the physician. Each branch is presented with sufficient detail to make it of practical use as an index, and it is well classified so that it is convenient for reference in emergencies. The promptness with which the book appears, its thoroughly practical character and its inexpensive price (\$1.50) appear to us points of excellence that should commend it to the busy practiser of medicine.

A MANUAL OF THE PRACTICE OF MEDICINE, prepared especially for students. By A. A. STEVENS, A. M., M. D., Lecturer on Terminology and Instructor in Physical Diagnosis in the University of Pennsylvania; Demonstrator of Pathology in the Woman's Medical College of Pennsylvania; Physician to St. Agnes's Hospital, to the out-patient department of the Episcopal Hospital and to the Southeastern Dispensary, Philadelphia. Fourth edition, revised and enlarged. Illustrated. Pp. xviii.—511. Philadelphia: W. B. Saunders, 925 Walnut street. 1896.

The frequency with which new editions of this manual are demanded bespeaks its popularity. It is an excellent condensation of the essentials of medical practice for the student, and may be found also an excellent reminder for the busy physician. This edition has been revised and additions have been made with a view to bring it forward to the immediate present. It is announced that an Italian edition is now in progress, which further accentuates the favor with which the work is received.

ELEMENTARY BANDAGING AND SURGICAL DRESSING, with directions concerning the immediate treatment of cases of emergency for the use of dressers and nurses. By WALTER PYE, F. R. C. S., late Surgeon to St. Mary's Hospital. Revised and in part rewritten by G. Bellingham Smith, F. R. C. S., Surgical Registrar, Guy's Hospital. 16mo, pp. 218. Seventh edition. Philadelphia: W. B. Saunders, 925 Walnut street. 1897.

This book has apparently been one of the popular little manuals, for already six editions have been exhausted in eleven years. The present edition has been revised to meet recent advances in surgical practice and this, too, has necessitated some additions. The progress made in the dressing of wounds has been noted by the rewriting of the chapter on that subject. Nurses in surgical wards will find this a very useful guide.

NEURAL TERMS, INTERNATIONAL AND NATIONAL. A Treatise on the Principles and Practice of Anatomic Nomenclature, with Special Reference to the Brain. By BURT G. WILDER, M. D., Professor of Neurology, etc., in Cornell University. Reprinted from the *Journal of Comparative Neurology*, VI., December, 1896. Pp. 137, including seven tables. Ithaca, N. Y.: Henry Cowell. 1897.

The many friends of nomenclature reform will hail with delight Dr. Wilder's treatise on neural terms. No one in America, perhaps not even in the world, has devoted so much time, energy and perseverance to this important but tedious work, and it is most gratifying to Dr. Wilder's many admirers to see his views so generally adopted not alone by American scientists, but European scientists as well. The treatise before us takes up historically the progress of the contest against ambiguity in neural and medical terms, and in most instances the success is attested by the adoption of the terms suggested by scientific bodies, as the American Society of Anatomists, the American Neurological Association, and others by the leading neurologists of Europe and America.

This monograph is an important addition to our knowledge of neuronymy and should be carefully read by all interested in the reform of our anatomical nomenclature. W. C. K.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX.
A Work of Reference for Medical Practitioners. Fifteenth year.
New York: E. B. Treat, 241-243 W. 23d street. 1897.

This annual for 1897 comes with its usual amount of valuable material condensed and so arranged as to be easily consulted by the busy practitioner. For fifteen years the annual has held its own with many competitors, and the 1897 edition is a worthy successor in the long row of successful year-books.

The arrangement of the material does not differ from other years, considerable space being devoted to new remedies under the authorship of William Murrell, of Westminster hospital. Particularly interesting are the various reports on the serum preparations, all in all showing distinct advances, which insures their permanent position in therapeutics. The review of new treatment, under the able staff of contributors, is exceedingly well done and as complete as can be found in the higher-priced voluminous year-books. The value of the Röntgen rays as an aid in diagnosis is nicely illustrated in some of the reviews. The chapters on sanitary science, new instruments and new books cover the respective fields fairly well and add to the value of the work.

At the price for which it is sold, no physician can afford to be without the annual. The typography is similar in appearance and quality to the preceding volumes. W. C. K.

TWO HEALTH-SEEKERS IN CALIFORNIA. By WILLIAM A. EDWARDS, M. D., Fellow of the College of Physicians of Philadelphia, etc., etc., and BEATRICE HARRADEN, Author of *Ships that Pass in the Night*, etc. Philadelphia: J. B. Lippincott & Co. 1897.

Dr. Edwards has lived eight years in Southern California and understands the climate thoroughly. Those who take him as their guide in health-seeking will be spared disappointments which must come to many who go with but meager knowledge of the country. He also does a kindness to those of limited means in warning them against going there. Miss Harraden contributes two chapters, gracefully written, but betraying more disappointment in the climate than a native of the northeastern section of the United States, unfamiliar with the tender charms of a more caressing land, will be likely to feel. The book contains many things which a would-be health-seeker should know. M. J. F.

BOOKS RECEIVED.

Atlas and Essentials of Gynecology. By Dr. Oscar Schaeffer, University of Heidelberg. Sixty-four full-page chromo-lithographic plates, comprising 159 figures; with descriptive text facing the plates, and

over 300 pages of introduction and treatise, illustrated with wood-engravings. Duodecimo, muslin, \$3.50, net. (Wood's Medical Hand Atlases, Volume V.)

Twentieth Century Practice. An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In twenty volumes. Volume IX. Diseases of the Digestive Organs. New York: William Wood & Company. 1897.

Clinical Lessons on Nervous Diseases. By S. Weir Mitchell, M. D., LL. D., Edin., Member of the National Academy of Sciences; Honorary Fellow of the Royal Medico-Chirurgical Society of London. Handsome 12mo, 299 pages, with illustrations and two colored plates. Cloth, \$2.50. Philadelphia and New York: Lea Brothers & Co., Publishers. 1897.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology and Dermatology, and specially prepared articles on treatment. By professors and lecturers in the leading medical colleges of the United States, Germany, Austria, France, Great Britain and Canada. Edited by Judson Daland, M. D., (Univ. of Penna.) Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania; Assistant Physician to the Hospital of the University of Pennsylvania, etc.; Fellow of the College of Physicians of Philadelphia. J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician to, and Lecturer on, the Principles and Practice of Medicine at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary, etc. Volume I. Seventh series. April, 1897. Octavo, pp. xii.—344. Philadelphia: J. B. Lippincott Co. 1897.

Fourteenth Report of the State Board of Health of the State of New Hampshire from July 1, 1895, to November 1, 1896. Irving A. Watson, M. D., Secretary. Concord: Edward N. Pearson, Public Printer. 1897.

Lectures on the Treatment of Fibroid Tumors of the Uterus, Medical, electrical and surgical. By Franklin H. Martin, M. D., Professor of Gynecology Post-Graduate Medical School of Chicago; Surgeon Woman's Hospital of Chicago, etc., etc. Price, \$1.00, net. Chicago: The W. T. Keener Co. 1897.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States. For the fiscal year 1896. Washington: Government Printing Office. 1896.

A Clinical, Pathological and Experimental Study of Fracture of the Lower End of the Radius. With Displacement of the Carpal Fragment Toward the Flexor or Anterior Surface of the Wrist. By John B. Roberts, A. M., M. D., Professor of Anatomy and Surgery in the Philadelphia Polyclinic; Professor of Surgery in the Woman's Medical College of Pennsylvania, etc. Octavo, pp. 76. Price, \$1.00. With 33 illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1897.

Diseases of the Ear, Nose and Throat and their Accessory Cavities. A Condensed Text-book. By Seth Scott Bishop, M. D., LL.D., Professor in the Chicago Post-Graduate Medical School and Hospital; Surgeon to the Illinois Charitable Eye and Ear Infirmary; Consulting Surgeon to the Illinois Masonic Orphans' Home and to the Silver Cross Hospital of Joliet. Illustrated with 100 colored lithographs and 168 additional illustrations. One volume, royal 8vo, pages xvi.—496. Extra cloth, \$4.00 net; sheep or half-Russia, \$5.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street. New York: 117 W. Forty-second street. Chicago: 9 Lakeside building.

Warner's Pocket Medical Dictionary of Today. Comprising Pronunciation and Definition of 10,000 Essential Words and Terms used in Medicine and Associated Sciences. By William R. Warner. Philadelphia: William R. Warner & Co. 1897.

Literary Notes.

MILITARY Cycling in the Rocky Mountains, by Lieut. James A. Moss, commander of the Twenty-fifth U. S. Infantry Bicycle Corps, is the title of No. 62 of Spalding's Athletic Library. It contains an interesting account of the trips of the first bicycle corps organised in the army and, besides a handsome portrait of Gen. Miles, is illustrated with views taken in Yellowstone Park and along the line of march. The book will be sent postpaid to any address in the United States or Canada on receipt of 10 cents by the American Sports Publishing Co., 241 Broadway, New York.

THE Sheppard Asylum, a hospital for mental diseases, located near Towson, Md., has lately issued its fifth annual report. It is a handsome brochure, well printed and beautifully illustrated with views of the buildings and grounds. The late Enoch Pratt left to the institution a bequest making the trustees of the asylum his residuary legatee, providing his own name shall be hereafter coupled with that of Mr. Sheppard in the title of the institution. Dr. E. N. Brush, a former Buffalonian, is the medical superintendent, and his valuable services are well recorded in this report.

THE *Fort Wayne Medical Journal-Magazine* represents a consolidation of the interests of the *Journal of the Medical Sciences*, established sixteen years ago, and the *Fort Wayne Medical Magazine*, established four years ago. The editorial staff of the con-

solidated periodical includes all of the editors of both journals, the editor of the *Fort Wayne Medical Magazine* having been chosen editor-in-chief. The first issues of this new enterprise present an excellent appearance and we have no doubt the change will prove beneficial to all concerned.

THE *Columbus Medical Journal*, our most excellent Ohio semi-monthly contemporary, has removed from 150 E. Broad street to 68 Buttle avenue, Columbus, O.

THE *Medical Record of Mississippi*, edited and published at Biloxi by Dr. H. H. Haralson, made its first appearance in April, 1897. Its first number is a creditable one and the journal ought to prove a benefit to a large region heretofore unrepresented in the journalistic field.

Treatment is the name of a new journal of practical medicine and surgery, published every second and fourth Thursday, at 11 Adam street Strand, London, by Rebman Publishing Company, at the annual subscription of 12 shillings (\$3.00), post free. It is admirably edited and printed and contains fresh material relating to the treatment of disease in all the various branches of medical science. Judging from the numbers already issued, *Treatment* is destined to become one of the best exponents extant of therapeutics.

THE *Intercollegiate Medical Journal*, published every second month and devoted to the study of the medical sciences, is the official organ of the Nu Sigma Nu fraternity. It is edited by Drs. F. Gurney Stubbs and Will Walter, of Chicago, with the coöperation of an associate staff of twelve assistant editors for the several chapters represented. It is handsomely printed on antique paper and its initial number, March, 1897, indicates an interesting addition to the high-class periodical medical literature of the United States.

THE *Boletim da Sociedade de Medicina e Cirurgia de Sao Paulo* (Brazil) pays the BUFFALO MEDICAL JOURNAL an appreciated compliment in one of its recent numbers as follows:

THE BUFFALO MEDICAL JOURNAL, *Bulletin of the Johns Hopkins Hospital* and *Bulletin of the American Academy of Medicine* reach us with the most rigorous punctuality. Their greatly valued and important scientific articles render these highly esteemed journals a credit and likewise an ornament to our science of medicine.

THE Jackson Sanatorium, at Dansville, has lately sent out a year book for 1897, which is a beautiful octavo pamphlet of fifty pages, from the art printing works of Matthews-Northrup Co., Buffalo. It is printed on heavy and highly finished book paper and contains numerous illustrations from photographs, printed in color, of scenes in and about the sanatorium. The year book will be sent on application to Dr. James Arthur Jackson, secretary, Dansville, N. Y.

DR. WILLIAM H. HUMISTON, of Cleveland, has recently posted to his professional friends a handsomely printed and illustrated brochure, entitled *A Year's Work in Operative Gynecology*. It is a creditable exhibition of skilful surgical treatment in a private hospital for women by a progressive gynecological surgeon.

RESECTION of arteries and veins injured in continuity—end-to-end suture. Experimental and clinical research—is the title of an elaborate and interesting paper on a somewhat novel subject, presented by Dr. J. B. Murphy, of Chicago, at the Richmond meeting of the American Association of Obstetricians and Gynecologists, September, 1896. The paper is elaborately and handsomely illustrated and was issued in separate form as a reprint from the *Medical Record* of January 16, 1897.

PHYSICIANS' Blue Book is the title of a brochure of seventy-eight pages, containing a list of delinquent debtors made up from lists furnished by the physicians of Buffalo. It is issued by the Press Publishing Co., G. E. Livingston, manager, 604 D. S. Morgan building, Buffalo, N. Y. Every local physician should possess one of these invaluable lists.

THE *Revista de Ciencias Medicas de Barcelona* begins its twenty-third year by donning a new dress of the latest styles of the typographer's art. It may now be classed as one of the neatest and cleanest of foreign journals and without doubt the ablest medical journal of Spain.

THE Illinois State Reformatory has lately issued its third biennial report. It is a handsomely printed and well-bound book of 118 pages, done at the reformatory—printing trade—school, Pontiac, Ill. We are indebted to Col. Chas. E. Felton, formerly of Buffalo, now one of the board of managers, for a copy of the report, which is an excellent record of valuable work done in the direction of reforming criminals.

THE Buffalo General Hospital has recently issued its thirty-eighth annual report, covering the year 1896. It is a well-printed brochure of eighty-seven pages, from the press of Baker, Jones & Co., Buffalo, and contains interesting financial and business statements; report of the training-school for nurses; annual report of the secretary of the ladies' hospital association; tables of medical and surgical diseases treated during the year; and a list of physicians who have served as internes since the hospital was organized in 1858. It betrays a little careless proof-reading, as instanced on page 71, where "ciliotomies" and "ciliotomy" appear as near neighbors, and on page 88, O. J. Steele should read A. J. Steele. Dr. Steele's residence is St. Louis instead of Rochester. Dr. Newton L. Bates is a medical director of the U. S. navy, and his address is Washington, D. C.

WE NOTED some time ago the refusal of William Wood & Co. to include the American Medical Publishers' Association in its list of medical societies, and it now gives us pleasure to note that D. Appleton & Co. do include it among the society meetings of interest to both the doctor and the advertiser—*Bulletin American Medical Publishers' Association*.

If we are to understand by the foregoing that Messrs. Wood & Co. decline to publish in their standard record of state and national societies in America the notice referred to, we think they were quite right in so doing; if, on the other hand, they refuse to publish a notice of the meeting in their news columns the *Bulletin* has just cause for criticism. It is a mistake in our view to interweave the professional and business interests of medical journalism too closely.

Items.

THE unveiling of the Gross statue will take place at Washington, D. C., at 5 o'clock P. M., Wednesday, May 5, 1897. It will be remembered that some six years ago the president of the American Surgical Association, Dr. Claudius H. Mastin, of Mobile, in his annual address, proposed that a statue be erected to the memory of Prof. Samuel D. Gross, M. D., of Philadelphia. The culmination of this proposal will take place on the date above referred to, under the auspices of the American Surgical Association and the Alumni

Association of Jefferson Medical College, that have jointly issued invitations to the unveiling of the statue.

A MEDICAL press bureau has been established by Mr. Charles Wood Fassett in connection with the National Medical Association meetings. It will be held at Philadelphia in the medical exhibit hall, June 1-4, 1897. The membership fee is \$5 and should be forwarded to Mr. Fassett, St. Joseph, Mo., or it can be paid to him at the meeting.

A SPECIAL tour to Europe and the International Medical Congress at Moscow, has been arranged under the patronage of Drs. N. Senn, Casey A. Wood, Harold N. Moyer, Eugene S. Talbot, D. R. Brower, J. B. Murphy, D. A. K. Steele and B. T. Whitmore, of Chicago. It is suggested that the comfort of those who intend visiting Moscow during the congress, August 19-26, 1897, will be greatly enhanced and the journey itself rendered more interesting and pleasant as well as more economical, by proceeding as one party instead of traveling singly or in small groups. Those wishing to travel in this way should communicate with Messrs. Cook & Son, 261 Broadway, New York, or 234 Clark street, Chicago. These well-known tourists' agents have arranged three itineraries, securing considerable reductions in the ordinary steamship, railway and hotel rates. An educated conductor will accompany each section of the party and the journey may be broken at almost any point to meet emergencies.

THE A. L. Hummel advertising agency, of New York, established by Dr. A. L. Hummel, of Philadelphia, whose province is exclusively medical journal advertising, has removed from 108 Fulton street to the Woodbridge building, 100 William street, N. Y.

THE New York Physicians' Mutual Aid Association makes a splendid showing in its twenty-eighth annual report, just issued. During the past year the families of eighteen physicians have been paid \$1,000 each. There are 1,347 members, a net gain of fourteen during the year. The amount on hand January 1, 1897, was \$32,627.69, distributed as follows: assessment fund, \$3,307.79; contingent fund, \$316.09; permanent fund, \$29,003.81. The economic management of the association under Dr. Daniel D. Lewis, president, and his many capable coadjutors in the subordinate offices, deserves unstinted praise. The membership from Buffalo should be doubled during the present year.

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Original Communications.

WAS ROBERT HOUSTON, OF GLASGOW, THE FIRST OVARIOTOMIST?

By LAWSON TAIT, M. D. New York and Albany; L. R. C. P. Edin., etc.,
Birmingham, Eng.

DR. GREIG SMITH has favored me with a reprint copy of an article by him in the *Practitioner* for March, in which he answers this question in the negative.

For my own part I regard all such matters as mere dialectic curiosities; and so far as concerns any possible claim of such a kind made for myself I should not care one pin what the answer might be. Others, however, attach importance to them, and Mrs. ———, the granddaughter of Ephraim McDowell, has gone so far as to class me in the list of those who have "attacked" her illustrious ancestor, because I have indicated a slight interest in the history of Robert Houston and have credited him with at least some importance in the history of this operation.

Dr. Greig Smith goes almost as far and has spent much literary skill and great industry in the preparation of a "library" paper. The misfortune of the paper is the absence of clinical acumen and logical accuracy, and it is this striking contrast in its constructive elements which induces me to reply to it, and to show, as I am sure I can do, that Robert Houston's case (1701) was an ovariectomy in every sense of the term and that (be it of interest and importance or not) it is the first case of that operation of which we have any record.

In all such efforts the demands of logic must be supplied by definitions agreed upon, and here, of course, Dr. Greig Smith and I may differ. If we should do so, our readers must judge between us. My first question for a definition, then, is, "What is an ovariectomy?" and I think the answer is quite easy: "A surgical

operation by which it is thought to cure a tumor of an ovary." Of course, *one* ovary here includes *two*.

It will not do to say merely that it is a cutting operation, nor an *abdominal section*, because my old friend and colleague, the late Mr. Samuel Berry, did one ovariectomy in his long and honorable life—he removed an ovarian tumor through a rent in the vaginal flexure in the course of labor, tied the pedicle and cut off the tumor—a complete ovariectomy.

It will not do to say that the operation must be "intentional," for many ovariectomies completed were not begun with any intention of doing ovariectomy at all.

It will not do, as Dr. Greig Smith seems inclined to believe, that the whole of the tumor must be removed, for in many operations large areas of cyst walls have to be left; yet such may be perfectly successful and are, so far as necessity goes, complete.

It will not do to say a pedicle must be seen and tied, for in many of the cases where transplantation by twisting and gangrene division of the pedicle has occurred completely, the tumor is removed by enucleation and the pedicle is never seen. In some, indeed, the tumors have been found entirely loose in the abdomen.

It will not do, as Dr. Greig Smith does, to interlard the discussion with views on pathology as to whether or not Houston was right in them. For instance, he quotes "Showing that Houston believed, with most of his compeers, that 'ovarian dropsy' was simply a dropsy of the ovary." Singularly enough, that is my belief today, though I don't follow, as I cannot understand, what Dr. Greig Smith says further, "and not a tumor at all—and that he would as soon have suggested amputation for dropsy of the leg as excision for dropsy of the ovary." As I cannot understand, then, I may be forgiven if I say it is nonsense and quite beside the issue. We know very little of pathology; our advances alleged are generally confined to a change of nomenclature, with a very occasional and generally very unimportant extension of knowledge of minute structure.

Let us see how completely Dr. Greig Smith himself disregards this last difficulty and how completely I agree with him. He says: "Now, in considering Houston's case, we must be certain of the meaning of the words employed. The case undoubtedly records an operation of ovariectomy in the literal sense of the term, *incision* of an ovary or ovarian growth." Here he gives me my whole case, as I shall speedily show, only there is surely a misprint (or a very

serious blunder in syntax on the part of Dr. Greig Smith). He should have said an incision *for*, not *of*. With this correction we are at one, for Houston is guilty of no such misstatement. It is clear he diagnosticated an ovarian dropsy and he opened the abdomen to cure it. He did not know what was going to happen as he went on—only the supernaturally wise amongst us know any better even now.

But Dr. Greig Smith goes on and this is the chief element of error in his argument. It is claimed for Houston that he did ovariectomy in the usual sense, but “for this last operation two things are essential: one, that the tumor should be delivered from the abdomen, and the other, that its connections with the body should be severed. It is unnecessary to go beyond these two essentials; and there is not even a suggestion that either was carried out.” But they are not essentials, for it is not always either possible or necessary to deliver the tumor from the abdomen, as I have already shown; and in some cases there is no connection at all with the body, as I have also shown. Furthermore, the very details, given so accurately and effectively by Houston, shows that his was a case where Dr. Greig Smith’s “essentials” were quite unnecessary and wholly impracticable. I find they are not essentials at all, in a very well-marked group of cases, of which Houston’s was one, the first on record. Therefore it is that there is not a suggestion in Houston’s record that either was carried out. Therefore it is that I made a mistake when, in 1883, I said “he must have seen and divided the pedicle.” I was then as much in the dark as Dr. Greig Smith still is, and, like him, I believed in the “essentials;” but it is just because Houston so accurately describes what he did do and says nothing about that which he did not do that his story is absolutely deserving of credence and why he deserves the credit, be it worth what it may, of being the first to do an intentional, complete and successful ovariectomy.

Looking back on my thousand of ovariectomies, I see now that there are many distinct groups to be made; each of these groups includes numbers, great or small, which give characters different from the other groups, and these characters demand different views for their pathology and different methods for their treatment. Until our eyes are open it is astonishing how blind we are. Spencer Wells and others, myself included, went on removing healthy ovaries, along with simple broad ligament cysts, until it became quite apparent that they only required enucleation and

were thereby cleanly brought out from their extraperitoneal bed without need, in most cases, of tying even one vessel. Removing the healthy ovary and tube was mere nonsense, and no one persisted more strenuously against other people doing it than Sir Spencer Wells, yet he went on doing it himself. The group of dermoid tumors is another far less common and having widely different conditions of pathology and treatment from any of the others.

Another group is one to which I venture to give, tentatively, the name of "digesting" tumors, for the phenomena of peritoneal digestion is certainly a leading feature in their history. There can be no doubt whatever of the accuracy of the extraordinary stories told of the disappearance of ovarian tumors. I have myself seen and diagnosed ovarian tumors and have watched them disappear; and now that I have operated in quite a group of a special kind, and have caught a few of them in the actual process of disappearing, I am satisfied that they are all of one and the same kind, and that if we could only tell them in advance no operations would be necessary for most of them. But we cannot diagnose them, and they are too few in number to influence the general and best rule for ovarian tumors—remove them just as soon as the operation can be arranged after they have been recognised.

The group of which I now speak is not a large one, for whilst I am quite sure I have seen a dozen, I don't think I could dig out more than twenty in all, even if I gave myself up to the wearisome labor of seeking them in my enormous volumes of records, and I am not disposed to take up the useless task. I remember some of them very clearly, and I have complete records of three of them available; I have vivid recollections of some of the features of others and I have had several called to mind by the recollections of my former assistants and nurses. I can, therefore, give a fairly accurate picture of their peculiarities, but must leave it to others to confirm, extend or correct my observations, as may happen, when similar experiences arise to them. After reading what I have to say I think none of our younger ovariologists will pass one of these cases without more careful investigation than any has yet received. The collection of the careful records of a few instances will prove of great interest.

Fortunately, I have already to hand two independent records which fit into mine exactly, the first of which is Houston's own; and the second an example recorded in the most unprejudiced and interesting manner by my colleague and former assistant, Mr. John

William Taylor, to whom I am obliged for full notes of the case. He describes the tumor as "a large multicystic tumor of the left ovary; contents semi-solid and gelatinous, which had already partially escaped into the peritoneum, causing chronic peritonitis." So far the details are precisely those of the group to which I refer, though the "chronic peritonitis," as I have noted the appearances, are more those of the gorged velvet of a mucous surface engaged in the full to its function, such as the stomach presents during the process of digestion. The further details supplied by Mr. Taylor do not help me, particularly the details of the pedicle, which was treated by a wire clamp. From Mr. Taylor's first and less complete description, I thought that the gelatinous contents went down to the base, but there it was more solid, and Mr. Taylor is of opinion that it would not have been possible to deal with it in any other way than the clamp, and I have no right to question his judgment.

As in other pathological groupings we have no hard and fast lines, so here we shall have complete and incomplete cases.

Fortunately, from my own experience, I can adduce a number of cases where the details are noted and where they are very clear in my own recollection and in those of my assistants.

The features to be noted are that the walls of the cyst are peculiarly thin and are perforated at the thinnest points, the contents of the cysts being freely extravasated into the peritoneum. In one or two of the cases I have seen more of the cyst contents in the cavity of the peritoneum than in the tumor. The peritoneal surface, especially the visceral surfaces, are intensely congested and often covered with small floculi, semi-transparent, but quite different from the purulent patches of lymph of chronic peritonitis, if carefully examined. My own belief is that the peritoneum is digesting and removing the exuded cyst contents, and therefore presents a physiological appearance in so exaggerated a form as to appear pathological. The exuding contents of the cysts is always gelatinous or viscous, a most peculiar kind of stuff not like anything I know elsewhere. Houston's description of it is very good. It won't flow through any trocar and can be induced to get out of any sized wound only with the greatest difficulty. The hands are powerless to scoop it out, but it runs away rapidly with a stream of hot water, the only way of getting rid of it. As it dissolves in the warm water it becomes clear, as a rule, and shows clots as it flows in the stream, just as soap jelly does. When the abdomen

is cleared, and the process is a long one, the cyst is found to be a miserable bundle of shreds with a vague pelvic attachment, whilst in the cleansing, pieces of cyst wall and secondary cyst masses are washed away. I have generally tied this diffused mass, cut it short and dropped it back, but in some six or eight cases, so far as my memory serves me, there was nothing left to tie. This was notably the fact in the first case of which I have clear recollection, a patient sent to me by Mr. Alfred Freer, of Stourbridge, and operated on by me in 1879. There nothing required to be tied. In another sent to me by ———, and operated by me in ———, the attachment of the tumors was a soft villous mass, on which two small bleeding points were secured and the rest left undisturbed.

The details in others vary considerably, but the main points are sufficient to indicate close similarity, and the differences in character from the ordinary fluid-containing ovarian tumors are such as to demand a distinct classification. Of course, in all these cases, I use a drainage-tube.

Mr. Christopher Martin, for several years my resident assistant, has favored me with his recollections of two cases. He writes:

I find I operated on Miss S., on February 29, 1892, you assisting me. There was a ruptured cystoma of the right side: the abdomen was full of apple-jelly fluid, yellow and transparent, the tumor was almost sessile, the pedicle very friable; it tore through and had to be twice ligatured, and the abdomen was washed out and drained. I also remember the case at Swadlingcote, that of a middle-aged woman, on whom you operated. The abdomen was full of colloid stuff, which you washed out and drained. There was practically no pedicle to tie.

I had forgotten this last case until reminded of it by Mr. Martin's letter. She was 57 years of age, a patient of Dr. Hay Moir, of Swadlingcote, and I operated on her on June 15, 1892. The tumor was of the left ovary, but most of its contents had escaped into the abdomen, and I washed only a mass of débris, consisting of jelly and fragments of cysts. At the point of attachment in the pelvis was a mass of stringy fragments, which represented all there was for a pedicle, and nothing was tied.

The main features of the group are, the singular cyst contents, the rupture of the cyst walls, the extrusion of the contents, and the consequent activity of the peritoneal serous surface; the distinction of the cyst and the evidence of its loose detritus in the cavity of the peritoneum; and, generally, an exceedingly vague

area of attachment of the pedicle and a marked absence of prominent bloodvessels.

It was only after a comparative leisure came to my life by the discontinuance of hospital work, that I began to think it worth while to stitch together casual notes and recollections, and the re-reading of Houston's vivid description fixed the group in my mind at once.

I said, in 1883, he must have tied the pedicle, but I know now that he didn't tie the pedicle because he doesn't say so, and because the pedicle did not need tying. He had stumbled across one of those "digesting" cases. Tumor had ruptured and the contents were being extruded into the peritoneal cavity.

He opened the abdomen and was not a little surprised, after so large an aperture, to find only a glutinous substance stop up this origin; all the difficulty was to remove it; he tried his probes and fingers, but all in vain; it was so slippery that it eluded every touch and the strongest hold he could take of it. No words of mine could excel or improve this description of the extraordinary stuff. He took a strong fir-splinter, about the end of which he wrapped some loose lint, and thrust it into the wound, and by turning and winding it, extracted upwards of two yards in length of a substance thicker than any jelly, or rather like glue that is first made and hung out to dry; its width was upwards of ten inches. This was followed by nine full quarts of such matter as is observed in steatomatous and atheromatous tumors, with several hydatids, of various sizes, containing a yellowish serum, the least of them bigger than an orange, which seemed to be part of the distended ovarium.

Of course the hydatids were secondary cysts. He closed the wound in the method of his time and (Dr. Greig Smith has not noticed) he drained the peritoneum, "he kept in the lower part of the wound a small tent, which discharged some serosities at every drainage for four or five days."

Let us now suppose that Margaret Millar, of 1701, had fallen into my hands in the year 1897, what difference would there have been in the operation? The anesthetic could have enabled me to empty the abdomen in less time by a stream of warm water, and to empty it more thoroughly, and I should have used a glass drainage tube instead of a tent; and after these differences there is positively nothing. Probably my cleansing of these cases is wholly unnecessary, for after getting quit of the bulk of the gelatinous stuff and thereby reducing the work of the overlaid peritoneum, that industrious membrane could nearly always finish the task satisfac-

torily, as it did in Houston's case. Now we have gone clean daft about modern drainage. We have forgotten all about our father's tents and think drainage a new thing. It is nothing of the sort ; so that Houston's operation was not only an ovariectomy, "a surgical operation by which it was sought to cure a tumor of an ovary," but it was a successful ovariectomy, the first of its kind, a record success. It was done in a fashion almost up to date ; in fact, if I leave out the doubtful washing, I couldn't have done it better myself, and with this little explanation I hope Dr. Greig Smith will remain satisfied.

The horror of the thing remains. For a hundred and ten years the surgical world was blind to the lesson, and it took us another seventy years to struggle into the light of this great fact.

7 THE CRESCENT.

A RÉSUMÉ OF FIFTY YEARS' OBSTETRIC PRACTICE.¹

By JOHN HAUENSTEIN, M. D., Buffalo, N. Y.

A FRIEND of mine who commands a prominent position as an obstetrician in this city, suggested that it were very desirable if the older members of the profession should volunteer to relate some of their experiences to their colleagues, which might result in benefit to some, particularly to the younger and less experienced, who are engaged in the practice of obstetrics.

By reason of my friend's suggestion, and the fact of having had rare opportunities of acquiring some experience in the practice of midwifery, since I was called by almost every midwife on the east side of this city during a period of at least twenty years, to assist them whenever they had a case of difficult labor on hand which they could not well manage themselves, besides by quite a number of physicians who required assistance, I have concluded to give a brief sketch of my experience on a few subjects relating to the management of the parturient.

Anesthetics.—When I commenced the practice of medicine, and for several years after, anesthetics had not made their advent and patients had to suffer the brunt of all painful operations, however tormenting. Some luxations were the dread of the surgeon. Now, under the influence of an anesthetic, no complaint is made by the patient, and moreover, at the same time, some relaxa-

1. Read before the Buffalo Academy of Medicine, January 26, 1897.

tion of the tissues is achieved favorable to a reduction. In obstetric practice, however tormenting the suffering and the pain of labor, or during an operation necessary to correct some malposition of the child, great as the suffering of the parturient might be, we had no means at hand to soothe the pain effectually.

To contemplate the change which has taken place and the boon which has been contributed by anesthetics to ameliorate the suffering of the unfortunate, is simply phenomenal. No one can appreciate the blessings thus conferred more than he who had the opportunity of witnessing the torment of pain in the various distressed conditions, the dread and suffering in what were painful operations before the introduction of anesthetics, compared with the same conditions and the same kind of operations under their influence today, with no manifestations indicative of pain.

Ether was somewhat slow in asserting its claim as an anesthetic for the plausible reason, I believe, that Dr. Morton, when he realised the great importance of his discovery, was captivated and bewildered by the prospect of a dazzling pecuniary reward; then he made the mistake of procuring a patent, knowing, as he must have known, that patents were not favored by the medical profession. This mistake reverted to his disappointment in the realisation of his hope and made him an unhappy man. Thus it happened that his discovery did not meet with the enthusiasm which otherwise would have been in store for him, and that chloroform, which made its advent a year later, spread like wildfire in its adoption as an anesthetic, because not encumbered by a patent. Chloroform maintained its reputation in this city and elsewhere up to a very recent time, until assailed and made the scapegoat of many sins. But I have reason to believe, from observation and practical experience, that carelessness and a want of the necessary precautions were frequently as much to blame as the chloroform itself in causing the mishaps. I have administered chloroform very many times in my obstetric practice, as well as when requested by surgeons to administer it, which happened frequently, but I never observed any serious mishaps.

However, chloroform has yet claims to be employed in most obstetric cases in preference to ether, and its use in such emergencies will be continued for a long time yet to come.

My friend, Dr. Van Peyma, tells me that so far no case of death from chloroform, in the practice of obstetrics, is reported. This observation, together with the fact of the apparent suffering,

frequently observed and manifested by moaning, writhing and contortions, in the first stage of the administration of ether, should incline, almost exclusively, to the use of chloroform in obstetric cases.

The two most important precautions against accidents from the use of chloroform, omitting a number of others of less moment, are slow and gradual administration and with plenty of air, which can best be accomplished, in my opinion, by the use, for the purpose, of a simple napkin folded and held off a little from the mouth and nose so as to admit air, thus avoiding the cone which prevents the admission of the requisite quantity of air. The waste of chloroform by this means is of no consideration when compared with safety. The mask, which I have not used, is also considered by some as a safe medium for its administration, admitting, as is claimed, a sufficient quantity of air.

Antiseptics.—The triumph among the numerous achievements in medicine of the past half century occurred when antiseptics came to join hands with anesthetics and formed a partnership, the result of which revolutionised the domain of the practice of medicine and particularly that of surgery. Septicemia, childbed fevers and all such diseases as are infectious, whose germs find a nidus and consequent entrance into the circulation, with strictly antiseptic precautions can now be almost entirely prevented. This is preventive medicine and together with what bacteriology has in store, the future promises a brilliant field for the practitioner of medicine and surgery which will supply him with a rich harvest of resources that will enable him to prevent disease.

To be provided with the weapon by which he is enabled to stay such a fiend as childbed fever, the physician can well be proud of his profession. I have witnessed two epidemics (?) of this disease, which is highly infectious and dangerous, and many were the victims that were infected by the midwives, the patients of some of whom almost invariably took sick with the disease. I remonstrated and even threatened with prosecution at law if they would not desist from attending obstetric cases. But at that time they were not under control and, with few honorable exceptions, were an ignorant group. They were then not compelled to pass an examination as now, and the health department was inefficient to enforce sanitary measures. Today a note of a few words of complaint to the health commissioner would make harmless these criminals.

Effective, as a rule, as is the antiseptic treatment of preventing infection of the patient, it behooves the accoucheur to be on his guard so as not to become himself infected with a loathsome disease; for such is my sad experience that I can bear evidence of the danger of infection to the obstetrician under certain favoring circumstances and conditions. I was called by a physician to assist him in a case of delivery. After inquiry, but before an examination, I disinfected my hands with a solution of bichloride of mercury, then on introducing my finger into the vagina, I found the woman in labor with a fetus which proved afterwards to be of about the fifth month, in a decomposed and putrescent state, the lower extremities presenting, with not quite enough dilatation of the os uteri, to permit its passage. With my index finger and thumb I took hold of the feet of the fetus and made gentle traction for quite a while, when it was born. In due course of time I had two typical chancre, one on my thumb the other on my index finger, and to make the diagnosis doubly sure I subsequently had the secondary syphilitic eruption. About the same time the woman called at my office and showed me her crop of eruptions. This brief notice of my unpleasant experience of the dangers to the accoucheur of becoming infected with a loathsome disease deserves reflection.

The Knee-Chest Posture, which has for its object the reversion of gravitation as regards the uterus and its contents.—I find some difficulty in fixing the exact time when first the knee-chest posture was introduced and practised in this country. Robert Barnes, London, 1876, on the subject of prolapse of the cord says: "The resort to the knee-elbow position is not altogether new. I was taught it by the late Dr. Bloxam, nearly thirty years ago, but it has lately been enforced, and successfully applied by Dr. Thomas, of New York, under the name of the 'postural method,' (Transaction of the N. Y. Academy of Medicine, 1858); W. Theopold, (*Deutsche Klinik*, 1860); by Dr. Wilson, (*Glasgow Medical Journal*, 1867,) and others." From these statements must be concluded that the postural position was not known and much less applied by the obstetrician in this as well as in countries in Europe before the year 1858, except by a very few, if we accept the remarks of Dr. Barnes.

The knee-chest posture is of vast importance and advantage in the management of a number of cases of difficult labor. It becomes almost absolutely necessary in the successful management of

prolapse of the cord, to reposit which great reliance can be based upon the assistance of gravitation. Equally advantageous is the knee-chest posture in face presentations to correct the position of the child's head by bringing up the vertex.

The new method which I have never employed, because I knew it not, which has for its object the same principle—namely, that of gravitation, is the method of Trendelenberg, which prescribes a posture in which chloroform can be administered, an advantage in some cases, since the knee-chest posture is not well adapted for its administration.

Prolapse of Cord.—This accident receives its great importance from the published statistics, according to which more lives have been sacrificed formerly, for the want of knowledge of its management as now established in this country as well as in Europe, than any other accident incident to the child of the parturient. Considering that about 2,000,000 of births take place annually in the United States and that, according to reports, in 250 or 260 births one of prolapse of cord happens, and that nearly one-half the children of this number are born dead, one can contemplate the great significance of this subject. This startling percentage of deaths can and ought to be reduced to a minimum, according to my experience, and in consideration of the facilities at the command of the obstetrician today, by means of which the cord can be returned readily in the knee-chest posture by the hand, beyond the head of the child. The knee-chest posture offers two very great advantages, in that it permits the hand easily to pass by the head of the child and that by the law of gravitation the cord sinks almost of itself to the fundus of the uterus in this position.

As regards the mode of procedure to be followed in returning the prolapsed cord, the opinion prevails, almost unanimously among the authorities, that the hand should be used. The *American Text-Book of Obstetrics*, 1895, says: "There is no instrument equal to the hand for this purpose" and discards entirely the use of instruments. I could quote from more authorities, but I deem it not necessary to enforce the proper procedure. There is one writer, Ed. Reynolds, M. D., however, (*Practical Midwifery*, 1892,) who furnishes unction to those that still continue to dilly-dally and fumble with the catheter, or some one of the scores of similar instruments, and a ribbon, with which they may sometimes succeed in returning a prolapsed cord. He says: "In most cases, however, digital reposition fails, and in such cases an attempt should be

made to replace the prolapsed portion of the funis by instrumental means." This opinion is undoubtedly based upon a want of practical experience, for it is contrary to the views of almost all the authority on this subject, and decidedly contrary to experience, and although I claim no authority, yet I presume to deny the correctness of the view.

I can think of but one case in which an instrument could assert a claim, and that is in a case of insufficiency of dilatation of the os uteri to admit the hand, and yet attended with danger of compression of the cord, but the introduction of the instrument with the portion of cord prolapsed ought to be made in the knee-chest posture, as absolutely necessary. I have never met with such a case.

I firmly believe that in the near future the obstetrician will have acquired such dexterity in the manipulation of these cases that the statistics will show a minimum in death-rate of children. My opinion finds support in that some obstetricians, by the improved technique, have already materially reduced the death-rate.

Ever since the knee-chest posture was made known in this country, I practised the method of returning the cord as now generally applied. I have treated quite a number of cases, more than is generally allotted to one physician during his practice. In most instances I was called by midwives and found, almost invariably, strange as it may seem, the cord beating and the os uteri sufficiently dilated for the hand to pass.

The manner of my procedure was, whether it were simply a loop or a handful, to take the portion of prolapsed cord in my hand, right or left, as the case required, the patient being in the knee-chest position, and pass it down beyond the head, keeping the cord with the end of my fingers in place until the patient was turned on her back, making some pressure, with the free hand, externally on the head of the child towards the pelvis and then withdrawing my hand from the uterus. I then placed my ear on the woman's abdomen and if I found the fetal heart-beat to be satisfactory my services were concluded. I never gave chloroform. However, if chloroform has to be given, the patient may have to be held in the postural position by assistants, or in the new postural position, that of Trendelenberg. Since I adopted this method I do not remember a case which did not prove successful in preserving the life of the child.

Face Presentation.—I have some remarks yet to make on this accident in addition to what I said in a paper which was written as

long ago as 1881, and which was read in a meeting of the Medical Society of the County of Erie in January, 1882. I claim to have been one of the first, if not the first, to take advantage of the postural method in performing cephalic version in face presentations, and I am sustained in my assumption because the literature on this topic as late as at the time I wrote the paper mentioned was barren on this subject; for I could find nothing in the text-books and treatises on midwifery that portrayed any similarity to the method I had employed since the knee-chest posture became known in this country.

Although the object of correcting a face presentation is not so much for saving life as it is to alleviate pain and suffering and shorten the duration of labor, yet cases of death continue still to be reported from time to time as a result of the accident. In this connection I will mention a case that occurred in this city a number of years ago, which was related to me by the physician whose case it was, and who called as consultant and assistant to another, who at the time had one of the most extensive practices in midwifery in the city, but in spite of their efforts, strange as it seems, both mother and child were permitted to die.

When this physician, whose case it was, called me some years later for assistance in another case, in which I made flexion of the head in the knee-chest position, he was so delighted that he prevailed on me and insisted that I should publish the method, which I did as you know.

The literature of today, as I am told by a friend, a specialist on obstetrics, who is well-informed on the subject, contains over one hundred articles published in the medical journals, treating of face presentations, particularly as regards the cause and the *modus operandi* of its occurrence. All such speculations and theories as to the cause of face presentations possess no value in a practical point of view. It is immaterial by what mysterious passage or freak of nature the presentation might have been effected, unless the means at the same time can be pointed out by which the occurrence can be prevented, for when the accoucheur meets with a face presentation it is there, and no speculation or theory will alter it, but according to my judgment, based upon some experience, it becomes his duty to correct, if possible, the malposition of the head.

The superabundance of literature on this subject; the differences of views existing among writers as to the propriety of inter-

ference, unless in exceptional cases, some trusting to nature almost exclusively to accomplish labor, others considering it quite a serious occurrence that requires interference and correction if possible; the various methods of treatment and management recommended mystify the subject to a degree that the sarcastic proverb or saying of the Germans becomes expressive of the situation, which translated is: "On account of the multitude of trees one cannot see the forest." I have no doubt that many of these productions deserve to be relegated to the waste basket.

But, notwithstanding, that face presentations have been so much written about of late years and brought to the notice of the profession so generally and amply, I have found no notice of the postural method for the correction of the accident in any of the text-books, although I have examined a number of treatises of American, English and German authors, excepting in a lecture by Otto von Weiss, Vienna, published in Leipzig, in pamphlet form of 42 royal octavo pages, 1893, in which mention is made of Humphrey, *American Journal of Medical Science*, 1877, who brought down the vertex in the postural position, and Partridge, *American Journal of Obstetrics*, 1884, who succeeded four times in five with the version. Also Bayer, (*Sammlung Klinischer Vorträge*, Volkmann, No. 278, 1886,) twice in three face presentations; in the third case with a rachitic deformed pelvis he was compelled immediately upon rectification to use the forceps to prevent the return of the deflection.

Many describe a proceeding by manipulation, both of external and internal, to bring down the vertex, but with only exceptional success. The forceps and podalic versions were frequently resorted to.

It is somewhat inexplicable to me that the treatment of the prolapsed cord in the postural position should be so generally adopted and the various, mostly unsuccessful, attempts to correct the position of the head in face presentations should still be continued, particularly since the object in view is achieved almost as easily in the one case as in the other.

The fog which seems to surround the subject caused by the various and discrepant views in the books of obstetrics ought not to deter any physician from the attempt and performance of cephalic version in the postural position in any case to which he may be called and in which interference is indicated; and it is indicated in almost all cases, for even measurement and palpation

are not always reliable and during the time such measurement requires, the version can be accomplished without much inconvenience or pain to the parturient. There is, however, one exception that may and ought to be taken into consideration and that is when the head is deep down and the chin anterior; such a case can be left to the efforts of nature or, if necessary, to the use of the forceps.

A few words more regarding the mode of operation, a repetition of what I have already said in my paper referred to. The patient being in the knee-chest position, if the head be already engaged in the pelvis, it can generally, readily be pushed down toward the fundus of the uterus, aided as it is by gravitation. The hand, right or left as may be required by the position of the face, can then easily be passed down beyond the head and the vertex brought up to the position of a vertex presentation. The only difficulty frequently encountered in the manipulation is the slipperiness of the scalp, which prevents a firm hold, but it can be overcome. I have been successful in accomplishing the version in all cases to which I was called, with the exception of one case of which Dr. Van Peyma reminded me which occurred many years ago; and what I can do others can do who are gifted with a little dexterity in manipulation.

After reviewing the subject calmly as regards the different methods of management, reported by quite a number of authorities, also in consideration of the many deaths reported in the pamphlet referred to, particularly in brow presentations, which by the postural method are treated like face presentations, and the advantage of the conditions of an easy labor achieved by the flexion of the head, I am of the firm opinion and belief that in the near future the postural method to rectify face presentations will generally be adopted as preëminently the method in the treatment of this accident.

The Forceps.—My first case of forceps delivery impressed itself so vividly upon my memory that I have frequently since been amused by the recollection of it. In those days when I attended lectures the opportunities which a hospital connected with a medical school presented for clinical instructions were few. I was a novice in the use of the instrument, never having seen it applied on the living subject or received any instructions except those on a manikin in the lecture room from my seat at a distance.

She was quite an intelligent midwife and one that understood her profession very well, a compliment which then but few

deserved, that called me to my first case of forceps delivery. As you can imagine, I did not feel very comfortable, for to be a doctor it is expected that he should know a little more than a midwife and be in command of some little skill in the manipulation of the instrument. However, I began fumbling and groping about in perplexity for a long time, and if she had not had the patience of a Job she would have discharged me and sent for some one else. But at last I succeeded in delivering a live baby. Then I was elated and concluded to do better the next time.

The forceps is an absolutely indispensable instrument in the hands of an obstetrician to enable him successfully to perform his function. It is the *sine qua non* in his armamentarium of useful means of overcoming difficulties, which in many cases, without it, would determine a fatal result.

The scope of my paper, however, permits but a limited treatment of this subject, and I must therefore deny myself the privilege of recommending or pointing out the particular instrument, and the essential parts of a good forceps among the many models best adapted for the purpose of the accoucheur. Besides, it requires a familiarity with the different instruments on the market and in use, which I do not now possess. During the longer time of my practice I used the Hodge forceps, which answered my purpose very well. I used also the White forceps occasionally, and when the resistance was not too great it proved to be a very acceptable instrument, but in cases when considerable force was necessary to be used it was apt to spring, but I am now told that this defect has been remedied.

The axis-traction forceps I have used only a few times and found it a little more cumbersome in its application than the simple instrument, and as regards traction it offers no appreciable advantage to one who is conversant with the axis of the curve of the pelvis, but may assist the unpractised in that of showing him the axis of the curve. It seems to me, therefore, that in the case of the simple forceps the operator shows the instrument the direction in which traction should be made and in the other case the axis-traction forceps shows the operator the direction. I have succeeded in delivering a child alive with my simple forceps when the axis-traction forceps in other hands failed.

The forceps nowadays used are a decided improvement on those that were formerly employed, although the American forceps, fifty years ago, was fairly well adapted for this purpose compared

with some European forceps which I have seen. I had intended to show you a forceps which has a dangerous appearance, yet there is no doubt but that formerly, fifty years ago, it was used in some parts of Germany. It was given to me by the late Dr. Brunck, who in this city practised medicine in the early forties until he assumed the editorship of the *German Democrat*. I presented it to Dr. Mann; it is entitled to a place in a collection of medical instrument curiosities and you may have an opportunity sometime to see it in such a collection.

The other example is in a foreign land and will never come to our shores except as a curiosity. When in Europe, in 1881, I visited ten or twelve days with a doctor in Alsace, a cousin of my wife. One day during my sojourn he asked me to accompany him to a case of labor in an adjoining village, not as a consultant, however, which I very cheerfully accepted. On arrival we found a woman in her first labor, which was progressing rather slowly, attended by a midwife. He was anxious to show me attention, and dinner-time drawing near, he concluded to expedite the labor by employing the forceps. He proceeded to apply the forceps and did it very well, making use of moderate traction, as I judged, and the child was brought in due time into the world, but dead. I tried for a long time to resuscitate it, but to no purpose. It seemed strange to me that with the ease and moderate amount of force apparently employed in its delivery, the child should be born dead. However, upon examining his forceps, the riddle, to my satisfaction, was solved. It was a heavy piece of iron, I judged it about $3\frac{1}{2}$ pounds or more in weight, with no spring or elasticity of its blades—a veritable cranioclast. Anemia of the brain or extravasation of blood from pressure, I conclude, to have been the cause of its death.

It was a French forceps, for he was so thoroughly a Frenchman that he would use no other. The use of such an instrument but a few years ago, which is doubtless yet used in some parts of rural France, does not speak in very complimentary terms of the highly educated and intelligent medical profession of that country as regards improvements of modern appliances in the obstetric art. In the use of the forceps I have witnessed two extremes of traction or force employed when in the early days of my practice I had occasion to call for assistance. In the one case the assistant called would not cease with a continued and uninterrupted pull, until the head of the child was born: the other would dilly-dally an entire

night with a little traction now and then, whenever a little pain manifested itself. It is unnecessary to say that both procedures are faulty.

I read some time ago of a certain professor who said if not in my words, at least in sense, that you must never use force with the forceps, which reminds me of what I have to say about the use of force. The exercise of a little charity, however, will explain the meaning of the professor's advice, which he probably intended to convey. To interpret the advice as meaning inaction with the forceps applied and in hand, would be as absurd as to expect, in this situation, that the child would be born by whistling "Yankee Doodle came to town." What he doubtless meant to say was to use very moderate traction. But even with such charitable interpretation my experience does not agree. There are cases in which a great deal of force will have to be used, but when the forceps is properly adjusted and traction made in the right direction, I have never seen any harm done the woman.

But it is not the integrity of the parts of the woman alone that demands the exercise of judgment and prudence; there is a life imperiled and in danger by the forceps, and in order to save the child the facts call for the utmost precaution as regards traction and particularly as regards pressure. To prevent, if possible, fatal anemia of the brain or extravasation of blood, traction ought to be interrupted for a few moments, from time to time, so as to give the blood some chance to reënter the brain again.

But if a forceps delivery excludes the hope of saving the child's life (and yet, some survive almost a heroic operation with the forceps) and craniotomy is considered unjustifiable, then in order to save the life of the child the question confronts the accoucheur which of the two methods he shall adopt, the Cesarean operation or symphyseotomy, both grave and hazardous, shorn in recent time of some of their danger by antiseptic precautions. Symphyseotomy is condemned by the German obstetricians generally, and I am inclined to believe that it will never be adopted to any considerable extent by the profession. But it is a feather in the hat of him who succeeds in saving a woman and child by it and this doubtless contributes the most to sustain its questionable claim.

In case of pendulous abdomen it becomes sometimes necessary to use the forceps. I have, however, succeeded in such condition to assist nature in accomplishing labor without further interference, by tying tightly a sheet around the pendulous abdomen and over

the neck of the patient, thus assisting in bringing the head into the pelvis. But if the forceps must be resorted to, the application and adjustment is not so easily done as in ordinary cases where the vertex can be readily reached. In such a case of pendulous abdomen it is well to have the assistant hold the first blade, which is adjusted in a perpendicular direction until the second blade is adjusted, then if traction be made it must first be made downward and a little backward until the pubic arch is cleared or overcome. The forceps in such a case will then have described three-quarters of a circle, as can be seen if left adjusted until the head is fully born. A little practice in manipulation is required. Except where deformity of the pelvis exists these cases are not met with in the primipara.

In ordinary cases it is an easy performance to adjust the forceps, although my first case would not seem to justify this statement. However, cases of perplexity have happened and will doubtless yet happen, such as the case to which a physician, a member of the Medical Society of the County of Erie, and one possessed of considerable intelligence once called me for assistance. He had tried hard for some time to apply the forceps but did not succeed. Upon examining I found that he had pushed the blade against a fold of the os uteri and consequently failed in his efforts. This case teaches that in the application of the forceps one must keep close to the head of the child with the blade of the instrument introduced, then this difficulty will be avoided in its application. I have used the forceps many more than a hundred times, and in some cases I was compelled to use considerable force, but I remember no case in which I used it that I regret having done so. But I do remember with regret a case in which I did not use it, for I did not have it at hand, the case being six miles away from the city. The reason I did not have the instrument with me was that the professor of the school in which I attended lectures put particular stress on his injunction never to take the forceps along when called to a case of labor, and I, as a dutiful alumnus, left it at home. The patient was a fleshy woman and no longer young; labor proceeded fairly well and regularly, but not as expeditiously as I wished. After a time she began to have very strong pains, but with no advancement of the head. I thought of my forceps with regret that I did not have it with me. At last I sent for it, but alas! before it arrived the woman made an exclamation characteristic of rupture of the uterus, and so it was. I sincerely regret as a

partner of the professor my part of the criminal neglect, for after all, the woman living so far away from the city, I ought to have ignored his instructions. This case happened in the very early days of my practice.

Transverse Presentations.—Among the large number of difficult labors to which I was called there were, of course, a proportionate number of transverse presentations, of which a few interested me particularly.

I was called by a midwife to a case of transverse presentation, and upon inspecting the abdomen of the parturient I was at once tempted to make version by external manipulation, the woman being much emaciated, by reason of which every part of the child was distinctly outlined and discernible to the eye. No palpation was necessary to determine its position, and the ease with which I succeeded in turning it surprised me and the midwife exclaimed that I must be a wizard. This one case convinced me that even in less favorable conditions the attempt to correct by this method the position of the fetus in utero ought to be made much oftener than formerly.

Another case to which a midwife called me for assistance terminated not so happily. When I approached the patient for an examination I observed an arm protruding through the vulva. On inquiring as to how long this condition had existed, she answered, "Quite a while. I pulled on the arm for some time, but I did not succeed in bringing down the child." I looked at the patient's face and its anxious expression indicated a grave condition of her case. On a closer examination I found her pulse beat 150 or more and very feeble, a despondent expression was depicted and altogether the appearance and symptoms indicated that something very serious had taken place. She was really in a collapse, and how to account for it except on the hypothesis that she had sustained a rupture of the uterus was not evident. In order to protect myself against the suspicion and inference that I might myself have been instrumental in having caused her sad condition, before I touched her for the purpose of relief I requested the attendance of another physician to be called at once to assist me. I waited some time, but no physician came. I then explained the condition of the patient to the husband and concluded, in defiance of the desperate situation and hopeless result that seemed inevitable, to turn and bring the child away, which was accomplished with little difficulty, then to finish labor and remove the placenta. When on introducing

my hand into the uterus for the purpose it came in contact with the intestines of the patient. This was a plain case of malpractice and the midwife deserved punishment, but the husband, being a clergyman, protested and begged me not to report it.

In a third case I was called by a physician. I found that the trunk of the child had already been brought down, but the chin was hooked against the arch of the pubis; the forceps had been applied, but all the pulling could not dislodge it. By pushing the chin up and turning it to one side the difficulty was overcome and the child was born. The physician was a beginner and therefore had not yet acquired much practice nor had any experience. Today, I am sure, such an oversight could not occur to him. It made me think of my first case of forceps delivery; he doubtless also recalls the case to memory with a smile.

From the fact, already stated, of being so frequently called to cases of difficult labor, I have met with a number of transverse presentations which required turning as the only feasible alternative in such cases that permit a child being born, but I do not remember any marked or very unusual occurrences in addition to what I have already mentioned in any of the cases I so treated that deserve mention.

Turning is frequently easily performed. At other times and in some cases it is attended with some difficulty, depending mostly upon the length of time that has elapsed since the liquor amnii drained off, and the degree of tonic contraction of the uterus; it may, therefore, happen in some cases that the operator earns his fee richly.

Permit me now the privilege of a short digression in relating as an episode to the previous subject an interesting case, not for the purpose of instruction and much less to be imitated, but as an example of heroic midwifery. Although I was not an eyewitness and had no hand in it, the facts are, nevertheless, reliable because they were stated under oath. Soon after I engaged in the practice of my profession, a self-styled doctor from Germany came and settled in this city for the purpose of practising medicine. He was rather an undesirable competitor, since he possessed the qualifications of a charlatan in a high degree and made use of them; by word of mouth, in newspaper articles in which he would parade some remarkable cure he had made, by demeanor, and in fact by all the means at his command he would endeavor to force himself upon the attention of the people. To give you an instance: He

was called down town near the docks to a laborer who had received an injury to his foot of not a very serious character, as I learned afterward, but, nevertheless, he bandaged it in a demonstrative way, had him laid on a truck with a man beside him holding up the injured foot high in the air, and in this position had him moved from the docks through Main street up to Genesee street, then home. The doctor, like Sancho Panza on his ass Dapple, following the knight of Don Quixote's fame, followed his patient high on horseback closely behind on the journey. However ludicrous the performance may have appeared to some, he nevertheless achieved his object, the talk of the town, since for a while his name was in everybody's mouth.

But the finale of the drama in which he played such a conspicuous rôle was near at hand, and as the popular saying goes, "each dog will have his day," was soon to be verified in his case. A countryman of the same people in whose family the act took place related the circumstances to me, which briefly told were: the doctor in the attempt to deliver the woman of the family, pulled the trunk off from the head of the child and that the head remained undelivered and was buried with the corpse of the woman and trunk of the child.

To suppress an opportunity so favorable for exposing a pretender could hardly be expected of me, considering the feeling and sentiment which I must have entertained against a rival who resorted to such unprofessional means as I have mentioned to acquire practice and a reputation. But regardless of whatever opinion on the subject may be entertained, frail human nature asserted its course and I reported the case to the coroner, who had been my preceptor. The victim was exhumed and a thorough examination made by a prominent physician, measurements of the head of the child and pelvis of the woman and so forth were taken, all preparatory to a legal prosecution.

On the trial I was summoned as interpreter, but it had leaked out that I was concerned in the instigation of the prosecution and the defendant's counsel objected to my acting as interpreter, but did not prevail, for the District Attorney, George P. Barker, a lawyer of high standing, insisted that I should be retained as interpreter and so the judge decided. The witnesses belonged to an ignorant class of immigrants, and spoke the Allemanian dialect only, which is not generally well understood by those who speak the German language proper. But as I had spoken that tongue in

my boyhood I understood it quite well and this fact may seemingly have come to the ear of the court.

The trial lasted a number of days and excited a great deal of interest in the community, for the court room was crowded with spectators each day during the trial. The sentence of the court was that defendant be confined in the Erie County Jail for one year, according to the law then in force.

The Placenta is the source of much trouble and vexation to the obstetrician both near and at full term and in abortion cases. A large volume could be profitably written on the different phases of the accidents incident to it, but it does not come within the scope of this paper to say anything about the annoyances of the placenta in abortion cases, and as regards its features at near and full term, I shall touch upon only a few of the most prominent frequently met with in obstetric practice.

In the very early time of my practice I was called by a midwife to remove a retained placenta, the patient living about four miles from the city. On arriving at the bedside of the patient I introduced my hand into the uterus and in a few moments it was clinched by the tonic contraction of the uterus so powerfully that it became benumbed and I could not tell whether I had that hand or not. Chloroform had not yet made its advent and no assistance was to be had in the neighborhood, and the saints did not answer my call; at the same time the woman was weakening from loss of blood. Under such circumstances I was in perfect mental agony and the time seemed an age before I could stir my hand to advantage. At last, after a long time, I succeeded in removing the placenta. Many years afterward I was called by a physician whom I found exhausted by the bedside of the patient from the efforts of removing an adherent placenta. The entire disk was firmly adherent and it required a long time to saw it off, as it were, with the edge of the hand and tips of the fingers.

Placenta Previa is doubtless one of the most unfortunate accidents to a woman with which the obstetrician can meet. In consequence of the many midwives that called for my assistance whenever they had a case of difficult labor which they could not well manage themselves, I had the unpleasant experience to meet with a larger number of placenta prævia than is commonly allotted to the general practitioner.

The management of a case as now recommended which includes early turning, slow extraction, antiseptics, is the very reverse of

that formerly practised. Then early turning was out of question, unless in exceptional cases in which the os uteri was sufficiently dilated to admit the hand, since Braxton Hicks's method was not yet practised, and I doubt whether it was then known. Turning was delayed until the os uteri admitted the whole hand, during which delay a dangerous loss of blood frequently occurred, imperiling the life of the woman. Delivery was accomplished immediately upon turning and the sudden emptying of the uterus in the enfeebled condition of the patient sometimes induced a shock that proved fatal. Antiseptics were not used for the obvious reason that they were not yet at hand.

But as the American Text-book of Obstetrics truly says: "There is no single method of treatment in placenta previa applicable in all cases and at all times." And I may add the treatment rests in great part upon the good or bad judgment of the obstetrician in charge.

Nagel says "That in some years placenta presentation was so frequent that it seemed as if it were almost epidemic." The unhappy results were many, as the statistics show, and I had my share of them, I regret to say.

Among the authors that give a collection of cases and the percentage of deaths to mothers, the death-rate of children being higher, but which I have omitted: King, 22.5 per cent.; Müller, 25 per cent.; Behm, Hofmeyer and Wydel, 30-40 per cent.; Dorland, 30 per cent.; Parvin, 36 per cent.; Winkel, 49 per cent. But what is astonishing and to me incomprehensible, is the report of Murphy, who claims to have had 61 cases with only two deaths, and one of the two was moribund when first seen. His method is to bring on labor at the seventh month or before. I predict that Murphy will maintain during this and the next generation the honor of an isolated and lonely example of extraordinary success in the management of placenta previa.

Reynolds in his work says: "The successful termination of a case of central insertion is a feat of which any obstetrician may well be proud." According to this opinion Murphy deserves to be canonised as a benefactor of mankind.

It is doubtlessly a fact that improvements have been made in the management of placenta previa in recent times and that the death-rate has been lowered, but I cannot be made to believe that the rate of deaths will be lowered to a minimum or to a few per cent. for a long time to come, for placenta previa presents in many

cases a dangerous state of things, and no matter what management may be adopted fatal results cannot altogether be prevented.

My experience in the management of placenta previa was not such as to enable me to contribute anything of importance which may be considered an improvement in its treatment. I would suggest, however, that the pregnant woman with indubitable indications of the insertion of the placenta over the os, the diagnosis of which accident can, with few exceptions, be made several months before the arrival of the time of confinement, be placed in a hospital, the interne to be instructed in the preliminaries of its management, and to send at once for the physician engaged in the case. Such arrangement should, in my opinion, supercede the induction of premature labor, a procedure the responsibility of which I should not like to shoulder. Consider a case and its possible result of induced premature labor in a case of placenta previa which may and sometimes does happen! A woman, enjoying at the time perfect health and vigor of life, and attending to her household duties as usual, but by your interference, although for a laudable purpose of saving her life, you find her a corpse the next day! Who caused her death? Comfort cannot be had in the contemplation that she would have died just the same whether interfered with before the full term of gestation or not until labor had commenced, but such consolation is very problematic and not at all certain. That the former somewhat crude method of turning and quick delivery has of late been superceded by the more gentle and safer method of Braxton Hicks, and thereby the danger in some degree lessened, but by no means overcome, I admit is true. I had but one case in which premature labor was induced, which I will mention a little further on, and that one case impressed me much with the awful responsibility the obstetrician assumes when he resorts to this method of treatment; yet, today it is practised by a number of men. Winkel, of Munich, and others are adverse to its adoption.

In post partum hemorrhage, which frequently takes place, I have confidence in swabbing the locality where the placenta had been attached, with a solution of persulphate of iron as one of the best hemostatics we possess.

I am now tempted to relate a lively scene which took place at a meeting of the Buffalo Medical Association in 1868, a sort of a picnic. Dr. Gay and myself (although I was not present at the meeting,) furnished the substantials for the entertainment. The

occasion being opportune, for Dr. Gay was not the favorite with them, or rather the majority of them, and I was remembered as having some years before belonged to an opposite faction from a number of those present at this meeting; it was, therefore, a feast for some of them to indulge in a little retaliation and they enjoyed it hugely.

Dr. Gay reported me, without my knowledge or consent, as having treated six cases of placenta previa within eight months, and that I had the full complement of fatalities that the statistics in such cases would allow, he having been my consultant and assistant in several cases and at such times doubtless learned of me some facts of the cases he reported.

Thereupon I was made the butt of unsparing criticism by most of the members. For a general practitioner to have treated six cases of placenta previa in eight months was something unprecedented and incomprehensible to them, and that I must have made a mistake in the diagnosis, although the cases of death reported they readily credited me with without question. Dr. Miner, true to his vocation, seemed to prefer a butcher knife to a scalpel in dissecting me.

Dr. Gay's turn was also on, since unguardedly he had related two cases and the management of them, but that in future he would trust longer to nature to complete labor. This was enough for Dr. White, who overhauled him severely because he did not follow the prevailing method of that time, which was to turn and deliver at once. Dr. Ring then came to the rescue with a wet blanket by stating that he had had only one case during his practice, to which he called Dr. White as assistant, but that both mother and child died. This dampened somewhat the exuberance of the placenta previa lore. They were very wise on this subject, and with a very moderate experience they knew better how to treat such cases than the accused.

It is rather late now for me to endeavor to vindicate myself against the insinuations so long ago made, but that I treated the number of cases reported and within the time mentioned and that I was able then as now to make a correct diagnosis of the cases would be a waste of words to prove.

Placenta previa is not timid; on the contrary, it is very bold; it does not conceal its color when you meet it, but makes its presence dangerously evident, and the doctor who fails to diagnosticate it must be lamentably defective in comprehension.

I may have made mistakes, but unless the treatment then in vogue was a mistake, I do not remember of having made any very serious one; but in that I am not alone, for, show me the physician of some practice who has never made a mistake! The most eminent make mistakes and repeat them. I witnessed once the world-renowned surgeon, Hamilton, perform the operation for stone in the bladder when no stone was to be found. This was certainly a mistake.

I have already indicated that I would make mention of a case of placenta previa in which premature labor was instituted. I reported the case in the *BUFFALO MEDICAL JOURNAL*, but I omitted purposely to state some facts which, when related, may have the effect of dampening somewhat the ardor which might prevail upon some physicians to adopt the method.

August 25, 1878. The woman before commencing the induction of labor was apparently in perfect health and vigor of life, attending as usual to her accustomed household duties. At 8 o'clock P. M. a catheter was inserted to bring on labor, which was followed immediately by a copious hemorrhage requiring the tampon and T bandage. I stayed in the house all night, but with the exception of using the catheter once to draw off her urine during the night there was no occasion to do anything. At 9 o'clock the next morning the first pain indicating that labor was beginning, with a sudden loss of blood, took place, and there being no certainty as to the time when active interference would become necessary, and Dr. White being out of town, I sent for Dr. Rochester, with whom he had already an understanding.

At 12 o'clock, noon, turning and delivery at once were performed by Dr. White. Ergot per mouth and hypodermically was used to arrest the post partum hemorrhage and a tampon soaked in cider vinegar was introduced far up in the vagina. All three of us had a lively spell for a time, since the woman was very weak from the shock of so sudden emptying of the uterus and in addition from the loss of blood, which was yet oozing out, notwithstanding the tampon. She rallied, however, after a while and things began to look promising. This condition lasted about three-quarters of an hour and I was left alone with the patient, during which time, however, napkin after napkin was removed considerably saturated with blood; this began to tell upon the patient and I had to resort to stimulants, raised the foot end of the bed considerably, and swabbed the part where the placenta had

been attached with a solution of persulphate of iron instead of cider vinegar, which controlled the hemorrhage completely. At the same time I sent for Dr. White, who soon after arrived, took a chair a little away from the woman and observed her. By this time our patient was in a desperate condition, her pulse at the wrist was hardly perceptible and her life was ebbing, as it were.

Those of you who knew Dr. White's characteristics, his bearing, his dominant and commanding attitude, will be surprised at the statement of my observation, when he sat for a long time, seemingly unable to suggest anything, mute, despondent, the picture of anxiety.

From time to time I would apply my fingers to the radial artery of the patient with no prospect of returning improvement of the circulation. At last, however, a faint glimmer of hope began to assert itself, slowly and gradually, little by little, the artery began to fill. We commenced to feel greatly relieved when the assurance gradually began to dawn that she would recover. And she did recover, although having had already one foot in the grave. This case, more than anything else, caused an aversion in me against the induction of premature labor in placenta previa, and I doubt if Dr. White ever after the experience of this case advocated its adoption. I have the vanity to believe that Dr. White on this occasion imbibed the idea that I knew something of placenta previa, for after this he was my friend, and in a meeting of the Medical Society of the County of Erie, in 1881, he canvassed the members for my presidency without my solicitation.

I have one more case of placenta previa to relate briefly and then finish. It is one of my last cases.

Some years ago I was called by a physician to a case and on my arrival I found the woman had already lost considerable blood. On examination I detected the placenta partially inserted over the os and by pushing it a little aside by my finger, I could feel a little farther up the head of the fetus. I considered the case a proper one for forceps delivery, and without loss of time succeeded in applying the forceps and delivered the child. The woman made a good recovery.

The entire subject of placenta previa is yet a tangle and a conflict of opinions as regards its management and treatment and the course for which we think we have the best of reason to pursue today, is subject to be condemned tomorrow. The obstetrician in no other cases of midwifery is burdened with so much responsi-

bility or is required to exercise more sound judgment than in these cases, since every case has its peculiarities which must be met, and in spite of all our knowledge, reason, earnest endeavor and carefulness, we are frequently doomed to disappointment.

309 ELMWOOD AVENUE.

MYCOSIS FUNGOIDES; WITH A REPORT OF CASE.¹

By GROVER WILLIAM WENDE, M. D.,

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IN THE year 1814, Alibert, under the term of mycosis fungoides, recorded a condition which he depicted as certain mulberry masses, prone to ulceration, which he regarded as syphilitic. However, in a later contribution, published in 1833, he defined it as a distinct pathological process. Since then the malady has been recognised by numerous dermatologists under as many different names, but so loosely and carelessly employed that it was difficult to understand the precise meaning which these terms were intended to convey. The Germans suggested the name of *granuloma fungoides*; the French preferred to call it *lymphadémie cutanée*; the English, not so conceited in their nomenclature, described the morbid state as an *eczema hypertrophicum*, or *tuberosum*, or as a *fibrome fungoides*; while the Americans, not to be excelled in confusion and uncertainty, have characterised the disease by numerous pseudonyms. Dühring, to secure clearness and accuracy, called it *inflammatory fungoid neoplasm*; Van Harlingen, hoping to be rightly understood, styled it *ulcerated scrofuloderma*; and Hyde, thinking to give a more exact definition, characterised it as *myeloma cutis*. Language often fails to express with precision the ideas which one conceives of things and this is especially true in medicine. But in order to avoid perplexity, an agreement of views is absolutely necessary. Therefore it is desirable in cases like the present that a single name should be adopted, the others following it as synonyms.

When the square of the hypotenuse is geometrically demonstrated no one has a right to his own notion about it. Until, then, a better name is found, let that of *mycosis fungoides* stand in honor of Alibert, who first called our attention to this distressing, but interesting, disease.

The disease comprises three distinct stages, although all of them may not necessarily be present in each individual case. Some latitude must be allowed to the characteristics of these various stages.

1. The eczematoid stage is accompanied by a course which may be either brief or protracted, in some instances lasting only a few weeks, in others lingering for several years. Its cutaneous manifestations are numerous, varying greatly in size, form and character and representing the different types, as simple erythema, eczema, urticaire and psoriasis, which may be located anywhere on the body and which are usually attended by an intense pruritus.

2. The lichenoid stage is formed of eczematoid or psoriasiform plaques, which involve small, dense, lentil-sized papules, lasting for a varying period and then ostensibly melting away, only to be followed by others. They frequently affect the healthy skin, in which case they are apparently sub-epidermic and are usually of uniform color. They, however, present various hues, from bright red to reddish blue or purple. They also have a shiny appearance. In shape, as the disease progresses, they become elevated and nodular. The itching accompanying the disease is severe, and from repeated rubbing the hair becomes thinned. The duration of this stage varies from a few months to two years.

3. The fungoid stage succeeds when the pathological process concentrates into tubercles, nodules and tumors, as a sequence of the lichenoid stage. However, in extraordinary instances this particular stage may assume the initiative and mark the incipency of the outbreak. In the development of the growths just named they take various forms, mostly round or ovoidal, being frequently flattened and occasionally pedunculated and pendulous. They vary in consistence according to their size and age, the younger and smaller ones being usually quite firm and the older and larger ones quite soft and doughy. Their integument may at first be natural in color, but, later, it becomes more or less livid. The character of the skin is so modified, in some instances, as to be barely recognisable. The tumors disappear by absorption or ulcerate superficially. Fresh nodes frequently form on the site occupied by the tumors which have disappeared. Thus the difficulty steadily progresses until life terminates from sheer exhaustion or some intercurrent disease.

CASE.—Frederick B., the subject of the case which I report this evening, was at the time of his death 55 years old. He was born in Germany and lived there until he attained the age of 6, when he came

to this country, settled in Tonawanda, N. Y., and there remained until his death. For the most of his life he kept a saloon. His family and personal history, with the exception of an occasional attack of rheumatism, were good. There is no record of syphilis. He was five feet nine inches in height, of excellent proportions and weighed about 150 pounds. He had four healthy children. His mother died at the age of 90. His



WENDE—MYCOSIS FUNGOIDES.

father was accidentally suffocated by gas at the age of 75. His two sisters are still living and are in excellent health. Five years before his death and just prior to the appearance of the disease which finally proved fatal, he visited Mount Clemens to seek relief from an attack of rheumatism. Instead, however, of obtaining help by the use of the waters, his sufferings were thereby increased. The skin over limited areas of the back and shoulders became irritable and itched and his gait was unsteady. Immediately upon his return home he consulted Dr. Murray, his family physician, who, judging from his irregular and peculiar locomotion, regarded the ailment as locomotor ataxia. The difficulty lasted four months and was treated with electricity. The initial cutaneous manifestations were confined to the scapular region,

and were pruriginous in character, as evinced by scratch-marks. This locality, however, soon showed well-developed, slightly scaly patches, which for two and a half years were evanescent. Finally, the remissions grew less frequent and their duration shorter, while the patches became more diffused, so that in a short time the surface of the entire body had gradually undergone a change and was more or less affected by the same scaly patches. It was a notable circumstance that the lichenoid stage was wanting: at least no lesions which harmonised with it had been developed, the mycotic stage being ushered in by an almost simultaneous production of numerous nodes and tumors which continuously appeared upon and disappeared from the various portions of the body. Sometimes great numbers were manifested in rapid succession. The first "lump" (as the patient expressed it) to show itself was situated on the outer side of the left leg, which was immediately followed by a similar one on the right leg in the corresponding locality. Others rapidly succeeded, so that, in a short time, they were visible in every stage of development, with wide diversity of shape and size. The face, body, arms, legs, hands, feet, fingers and toes were studded with them. Upon the right cheek they coalesced and produced an ulceration of some magnitude. The back and chest were the only regions partially involved. The course and development of each individual tumor, or node, varied greatly. Some were acute, others were chronic; and as they increased in size they *became* softer and took on a mushroom-like appearance. A certain number of them were much darker at the base than at the apex, and the entire growth was overflowed with a profuse gelatinous exudation. Some grew to the dimensions of a moderate-sized orange, while others remained stunted, not being larger than a pea. Upon the trunk they were flattened and strikingly elevated, while upon the face, arms and legs they exhibited an oval contour. The discharge was sero-purulent in character and possessed a pungent and offensive odor. Several of the neoplasms which were conspicuous early in the course of the disease had faded completely, leaving a pigmented aspect, while others had only partially disappeared. Accessory to all these new pathological formations, the surface of the body revealed an endless number of plaques, some that glistened from a serous exudation; some that were reddened from a hyperemia; and others that became squamous from a tendency toward improvement, taking on either the cast of eczema, erythema or psoriasis. At the time of death there were over 500 of these different-sized tumors situated upon the various portions of his body; and ten days earlier those about the orbit became necrotic in their interior. Coincident with this unusual feature may be recorded the additional interesting fact of total blindness. The face was also much swollen. During the whole course of the patient's illness, with the exception of the two weeks preceding his death, the irritation of the skin was dis-

trekking. The lymphatic glands were greatly enlarged, notably the inguinal, axillary and post-cervical. Immediately after blindness came upon him his condition began to give evidence of near dissolution. He grew suddenly weaker, there was rapid emaciation, and death soon terminated his sufferings.

As the patient lived out of town my opportunity for observation and investigation was limited. An autopsy was positively refused. However, I procured, accidentally or otherwise, a small section of one of the tumors which histologically demonstrated a reticulated tissue, filled with oval cells densely packed, corresponding in size with the white blood corpuscles. I discovered but few capillaries. On the whole, the slide resembled the microscopic appearance of a lympho-sarcoma.

Regarding the treatment, such remedies as arsenic, iron, ergot, potassium iodid, and the like, were carefully administered ; locally, ichthyol, salicylic acid, resorcin, carbolic acid, terebine and the like, were employed. The means, however, proved inadequate and ineffectual.

471 DELAWARE AVENUE.

ESSENTIAL POINTS IN THE AFTER-TREATMENT OF SURGICAL CASES.¹

BY S. L. ELSNER, M. D., Rochester, N. Y.

KNOWING that the society had had a most interesting series of papers on special subjects, I will try to make a more general subject interest you this evening, and thereby hope to gain many points in the after-treatment of our surgical cases. Medical journals are constantly giving us articles on operations for abdominal and pelvic disease, and usually the surgeon spares himself no labor, time or expense in compiling statistics, in demonstrating his technique, and in the reporting of his histories. In view of all this, is it not deplorable that our most experienced workers fail to give the details of the after-treatment in this class of cases ?

Aside from the subject of drainage very little has been said or written. We are all aware that the patient's comfort and safety depend principally upon the kind of operation and the technique employed, but we are just as positive that they are greatly influenced by the treatment during, and that immediately follow-

1. Read at Rochester Pathological Society meeting, February 13, 1897.

ing, the surgical procedure. The operator has been far more successful since he has adopted a systematic and well-organised plan in the preparation of his patient. How greatly would we appreciate the advantage of such fixed rules in the after-treatment of abdominal section. Of course, details must vary with the necessities of each individual case, yet it shall be my purpose to collect and arrange such principles as may seem best suited for general adoption.

PROPHYLACTIC MEASURES.

Let us first consider a few prophylactic measures that may lessen the necessity for after-treatment; we will take it for granted that the patient is prepared as is now our universal custom. The anesthetic should be chloroform, unless there be a marked contraindication for its use. We thus avoid the unpleasant inhalation of ether, the struggling, and what is most important, lessen the chances of nausea and vomiting afterward. The amount of anesthetic, whether chloroform or ether, should be as small as will keep the patient relaxed. The patient should be handled as gently as if conscious and any unnecessarily strained position of the body avoided. Hospital attendants are very apt to be neglectful of these and the patient often wonders how it is that the limbs, body, face, tongue and jaw are so sore and lame. Hypodermics, when necessary, should be given most carefully and superficial punctures should be avoided. When, because of the magnitude of an operation or the previous mental or physical condition of the patient, you expect trouble from shock, it will be far better to anticipate the same by a few hypodermics of strychnine, and perhaps a few drops of amyl nitrate in the anesthetic, than to wait until a rapid and feeble pulse, with a clammy surface, demand urgent treatment. The temperature of the room should be well regulated and all possible draughts avoided. The body should be well surrounded by warm blankets and sheets, and as small a portion of the abdomen exposed as is consistent with doing good work. In operating rooms supplied with the Edison current the electric heating pad is quite an advantage. It can be placed under or over the patient and the temperature accurately regulated, thus giving a very convenient appliance for keeping the body warm. Do not try to work through an inch or an inch and a half incision when you find that more room would save time and also avoid undue violence to the abdominal organs. When in doubt as to what you feel, a larger

incision will permit of more light being thrown in and one can see what is being done.

When it is necessary to protect part of the intestines outside of the wound, moist hot towels to cover them are less liable to cause abrasions to their peritoneal coat than are hot dry towels or sponges. Should it be advisable to flush the abdominal cavity, the fluid used should be at least 110° F. and the quantity large. The irrigation from a small tip is not efficient; a large tube with a funnel attached should be used, or the water poured directly from a pitcher. I have often seen patients with a very poor pulse at this stage of an operation react most kindly after a flushing of the peritoneum with a hot saline solution. All oozing should be checked and the cavity, in cases not flushed out, should be left as dry as possible.

Time is an important feature. The most successful operator is usually the one who is thorough and yet quick. After the peritoneal cavity is shut off, any time lost in carefully adapting the fascia and skin does not materially increase the risk.

POST OPERATIVE CARE.

Having considered these prophylactic measures, let us advance to the means of caring for the patient after the operation. On leaving the operating table it is well to put the patient in a bed previously warmed and supplied with hot cans. The recovery rooms should not be much cooler for a time than was the operating room, and the halls leading from one to the other of these rooms should be free from draughts. The nurse that takes charge of the patient should, if possible, be present at the operation, so that she is acquainted with the location of wounds, drainage-tubes and dressings, and consequently better able to make her patient comfortable when a change of position is required. If the patient is not shocked, the first symptom that may require treatment is the nausea, with or without vomiting. This usually ceases within a few hours, particularly if chloroform was administered. If it continues, however, it becomes a most annoying thing to treat, and a most distressing feeling for the patient with an abdominal or pelvic wound to endure. By the treatment for its relief one is often baffled. My plan is to keep the stomach at rest by withholding food or drink. If thirst is complained of, I give from six to ten ounces of normal salt solution per rectum every three or four hours, alternating this with nutritive enemata should feeding become necessary, and occa-

sionally allow washing of the mouth with cold water ; thus you feed and stimulate your patient and still avoid any unnecessary vomiting and retching. If this does not control the vomiting, you will find that a few rectal injections of from fifteen to twenty-five grains of chloral hydrate, diluted in two ounces of either warm water or milk, repeated at three-hour intervals, will soon bring about the desired result. It is not at all uncommon for my cases to go seventy-two hours without food or drink. I do this, not because of the presence of nausea or vomiting, but because I make it a fast rule to have nothing enter the stomach until gas or fecal matter has been expelled. I do believe that this avoids distress from gas, peritoneal inflammation and subsequent adhesions, with the possibility of intestinal obstruction. Morphia or other opiates should be withheld, unless severe pain demand them ; their use only increases the vomiting and nausea, paralyses the intestinal coats and makes it all the harder to get an action of the bowels.

Absolute rest of mind as well as body is essential. The room should be pleasant, commodious and well aired, and when possible the patient should not be left without a constant attendant for the first three days. A position on the back should be maintained for a few days. Every movement causes pain and increases the nausea of an already irritable stomach. By carelessness of the nurse or patient, in changing position, a ligature may slip, a glass drain may break, or the edges of a wound may be disturbed by the moving of the dressings. Often a patient lying on the back will demand a change when, if the nurse simply attended to the smoothing of the sheet and night-dress, or a change in the position of the limbs, her patient would at once be comforted. Occasionally a hand moistened with alcohol worked under the bandage and applied to the back, or the same applied to the forehead, temples, cheek and arms, brings with every stroke of a willingly applied palm solace and comfort to the suffering individual.

All visitors, as well as their floral offerings, should be refused for the first forty-eight or seventy-two hours, and for the first week thereafter only one or two of the nearest relatives should be allowed to visit the patient for a few moments each day. The bowels should receive attention at as early a date as is consistent with the kind of operation performed. In all cases, except those in which the intestines themselves have been involved, either in the way of anastomosis or suture, we should begin to move them at the end of twenty-four hours, sooner if there be any distention. The bowels and pulse

are the best guide to the progress of the case. If the pulse is over 110 with a tendency to become more rapid, and the abdomen is distended, immediate purgation is indicated, and it is astounding what relief a good movement brings. The rapid pulse falls, distention is over, the anxious expression of the face changes to one of contentment and comfort. If the distention and rapid pulse continue, however, and you are unable to open the intestinal tract, you may make up your mind that the case will not terminate favorably. Fourteen to sixteen hours after the operation, it is well to start the patient on grain doses of calomel every hour until six to ten grains have been taken. Follow this by fluid citrate of magnesia, two ounces every half to one hour until eight to sixteen ounces are taken. In the meantime it is well to make a high injection of turpentine, one ounce; magnes sulphas, two ounces; glycerine, four ounces; and soap water to make two quarts. You will find the plan of using salt solution to quench thirst, in the way spoken of, greatly aiding the result; for it is not uncommon to have gas pass the rectal tube while trying to introduce the same high up for these injections, and often, too, the bowels will move while the nurse is trying to have a nutritive enema retained.

It is fair to prognosticate that if the third day has passed, after an abdominal or pelvic operation, and the bowels have moved well, that your patient is on the road to a speedy convalescence.

The bladder is our next consideration. No matter how aseptic your nurse and her catheter, in the majority of cases you will find that frequent catheterisation will soon produce an irritable, if not an inflammatory, condition in this viscus, so that one cannot be too careful. Always use a glass catheter. I have twice seen the nurse use a bichloride dossil, and wash the vulva from behind forward, thereby bringing all the possible available infection from rectum to the urethra. Do not leave an order with the nurse to catheterise every six hours, as is the usual method, but rather say no longer than twelve hours, and sooner if symptoms call for it.

I have often found that allowing the bladder to become a little distended enabled the patient to pass the urine voluntarily, and unless there be some contraindication for this slight voluntary effort, it will often avoid the usual twenty-four or forty-eight hours of catheterisation and the unpleasant bladder symptoms following. At the slightest suspicion of cystitis, irrigate the bladder with some bland antiseptic and repeat if necessary. After the stomach is quiet and the bowels have moved, the question of how best to

nourish these patients arises. To be slow and sure with this stage of advancement is the best plan. Begin with half-ounce doses of milk, mineral water or broth every half to one hour, and gradually increase the amount to four to eight ounces, and lengthen the intervals to two hours. After two days of such feeding and all goes well, the patient is ready for any light food she may fancy. Never force any particular kind of nourishment, but rely principally upon that which your patient finds most palatable and best borne. After the patient begins to take food in this way, do not limit the amount of fluid or order its administration at just such hours. You will observe, if you will take the trouble, that many of these cases feel that they are about starved, and they seem to at times need the food at very frequent intervals, and almost instantly after the desire comes on. I presume that this craving is due to the fact that the bloodvessels, not having been able to satisfy their demands for fluids from the stomach, draw upon every conceivable source for their need, and thus actually sponge up every bit of fluid they can reach. This very sponging up only strengthens my belief that withholding food in these cases, as I have stated, helps to prevent inflammatory trouble. Often, were germs to meet with say a little serum or blood that had been left in the peritoneal cavity, that had not been subject to nature's method of sponging, they would undoubtedly find a most perfect soil for their immediate culture and proliferation.

I have said very little about flatulency, excepting as I detailed the manner of opening the bowels. What I will say further is only to condemn all methods of intestinal puncture, opening of the incision and cutting into the intestine, washing the stomach, and the like. Passing a large rectal tube, ten or twelve inches, will give as much relief as any of the above, and if the annoying symptom is due to a paralysis of the bowels with septic peritonitis, nothing short of death gives any relief.

The treatment of surgical shock is fairly well understood. I would suggest one thing, however, and that is, never despair of your chance for success as long as the patient makes the slightest effort at breathing. The methods most successful are heat applied about the body, strychnine hypodermically, and transfusion or subcutaneous injections of the normal saline solution. It is surprising how some of these patients emerge even from what seems a hopeless condition, when these means for reaction are diligently persisted in.

Hemorrhage has but one treatment. Find its source, and ligate, or put a clamp on the bleeding vessel. This will, of course, require a reopening of the wound or the making of a new one, all of which should be done as aseptically as the original operation.

Infection, primary or secondary, requires the free evacuation of pus and perfect drainage. The superficial wound may look beautiful, and yet there may be a large accumulation of pus under or over the fascia. This is not always accompanied by pain, so that the pulse and temperature, together with the general condition of the patient is often our only guide. The temperature will register 99° to 102° with perhaps a little chilly sensation; at times, sweating. The patient loses appetite, becomes restless, and has a general bad feeling. An infected ligature may be the cause, and then you will have to go deeper for the trouble. The wound, or sinus, as it may be, must be thoroughly irrigated twice daily, and the patient, as a rule, is no worse for this interruption in the convalescence. When a ligature is at fault, a sinus may persist for many months, until that foreign body escapes or is removed, when the wound closes in very short order. I had one case of appendicitis in which I had to make a counter-opening in the loin, and both this and the anterior sinus remained open for thirteen months, but upon the withdrawal of the ligature, both closed within a week. When a sinus first makes its appearance and the pus has been in close proximity to intestinal walls, the appearance, as well as odor, resemble very much that of feces, and often make the operator fear he has a fecal fistula to deal with. This odor and dark color of the discharge soon change to an odorless, clear pus. When this change takes place, the surgeon always feels like congratulating himself that he has no fistula of a rebellious nature to fight.

Dressings, when wounds are closed, should not be disturbed until you are ready to remove the sutures, providing the patient is very well. In cases where you have drainage by gauge in the vagina or abdominal wound, these should be looked after, often after the first thirty-six or forty-eight hours. A glass drain, if used, must be emptied every half hour, and each time should be turned to prevent granulations entering its caliber through the various little openings. The asepticism of the hands, dressings and instruments must be as perfect at each change of dressing as they were at the time of operation.

In removing sutures there is one little point to guard against, and that is, infecting the stitch hole by drawing through it some

foreign matter on the surface of the suture. This can be avoided by not cutting the suture only in that part that is within the puncture. You can do this by pulling on the ligature and, at the same time, using the scissors open to push down on the skin and cut only when the blades are opposite the white suture material. In withdrawing the suture, draw it toward and not from the cut side. You thus avoid any traction on the scar and cause your patient much less pain.

REMOTE INTESTINAL OBSTRUCTION.

Intestinal obstruction following abdominal and pelvic operations are by no means uncommon. Those that occur immediately after, or during the first week, are, as a rule, accompanied by septic peritonitis, and in most instances every plan of treatment is futile. In all instances it is best to open the abdomen at once, and after loosening any adhesions, thoroughly drain. The cases of obstruction that follow later, say within two years after the operation, are often very puzzling and insidious in their onset. It has been my misfortune to see two such cases within the last six weeks, and I will take the liberty to give a short sketch of the histories so as to bring out the importance of an early diagnosis.

CASE I.—Was in a young girl of about 16 years, who had been operated upon one year before by Dr. Mulligan for appendicitis. In the night of Friday, December 18, 1896, I was called to her and found her complaining of a sharp pain in the left side, over the region of the spleen. She had no fever and no local tenderness. The mother stated that she should have menstruated on the 15th, three days before, and thought that the delayed flow was the cause of her trouble. Her bowels had moved naturally that morning. The abdomen was not distended and she had not vomited. I ordered a turpentine enema and gave a hypodermic of morphia. At 8 A. M. on Saturday she was still in pain, with no fever or increased pulse, but had a ghastly expression. There were then no local signs of abdominal trouble. The enema had not been effectual and the mother took it upon herself to give a large dose of salts, followed by oil, and this was not successful. I gave a high enema and brought away some fecal matter, probably what was in the colon, but got no gas. While giving the enema the pulse became rapid. At noon she had her first temperature of 100°, pulse 120, and the face pinched and an anxious expression. It was at this visit that I had Dr. Mulligan see her. Even now she had no distention or local tenderness, yet it was impossible with every effort made to get a movement or gas from those bowels. We were then in hopes of stimulating her so as to be able to operate later in the afternoon, but she would not react in

spite of the most active treatment and transfusion. She now began to vomit incessantly, and by 4 P. M. she was frightfully distended, began to have tenderness and died in a collapsed condition four hours later. No autopsy was permitted, but the diagnosis can hardly be doubted.

CASE II.—Mrs. P., age about 35, had been operated upon by our president one year before for dermoid cyst of the right ovary and cystic degeneration of the left. I was sent for on Wednesday, January 6, 1897, at 2 P. M., the patient complaining of a most severe abdominal pain. No fever; pulse, 80; bowels had moved the day before and also on that morning. I saw her twice more on that day and each time was compelled to give a hypodermic of morphia. At no time did she have fever, nor was the pulse over 80, but she had that same "abdominal expression," I would term it, that was present in Case I. The next morning I had Dr. Williams see the case with me. She had vomited some and the numerous enemas and cathartics ordered on the preceding evening were not effectual. She had no marked distention and no fever; her pulse, however, was very rapid, and she seemed in a collapsed condition. We nevertheless took the chance and sent her to the hospital, and after some stimulation had Dr. Little operate at nine o'clock that night. He found the obstruction caused by adhesion of the gut to the abdominal wound. The intestines were red and congested. The abdominal cavity contained some serum, but no pus. There was no doubt of beginning peritonitis. In one place, the gut was torn by loosening the adhesions and required a few sutures in its outer two coats. The patient reacted well and made a good recovery. She is now at her home, able to superintend her household.

Now, in neither of these cases were there the usual signs and symptoms at the onset of the trouble, and yet within twenty-four hours the one was so completely collapsed that operative measures could not be taken, and the other was saved only by a timely and systematic surgical procedure. If these cases teach you no lesson, they still impress me very strongly, and should I again find a patient that had the peritoneal cavity opened, and the same acute pain with vomiting later, and that peculiar expression described, I would advise immediate laparotomy.

When an abdomen has been opened, it is well to have the patient wear a good-fitting abdominal bandage of some strong material for at least one year. The question of allowing a corset is often met by a refusal from the surgeon. I can see no possible harm in its use, if it is comfortable to the individual case.

As for leaving home to complete a convalescence, I believe the patient should not be hurried into this. After leaving the hospital, they will get quite change enough at first by going into their

own homes and not at once be compelled to rush into some fashionable hotel in the mountains or at the seaside. A change of that sort several months later, I think much better, and attended by much less excitement.

NOTE.—Since reading the above my attention has been called to a very good article on After-treatment in Abdominal Section in the *American Text-book of Gynecology*.—S. L. E.

83 NORTH ST. PAUL STREET.

EUCAINE "B"—A FURTHER NOTE ON NEW LOCAL ANESTHETICS.

BY J. C. CLEMESHIA, M. D., L. R. C. P., London, M. R. C. S., England.

ONE evening in September of last year I read a short article entitled "Eucaine—a note on the new local anesthetic," before the surgical section of the Buffalo Academy of Medicine, describing the properties of the new discovery, and its advantages and disadvantages, with respect to cocaine in ophthalmic practice.

The most serious objection to the use of eucaine solutions lay in their irritating properties when instilled in the eye, the conjunctiva becoming markedly hyperemic and the patient complaining of a smarting, pricking sensation, lasting some minutes.

Gradually eucaine was less and less frequently used at the Buffalo Eye and Ear Infirmary, wholly, I believe, on account of the above-mentioned symptoms arising from its use, until at last it was employed merely to demonstrate its anesthetic properties to the medical students of the University of Buffalo attending Dr. Howe's clinic.

Lately, however, Professor Merling, of Berlin, has produced, synthetically, a new substance which, under the name of eucaine "B," claims to possess all the desirable properties of eucaine "A," minus its irritating and congestive quality.

Briefly stated eucaine "B" is the hydrochlorate of benzoyl-vinyldiacetonalkamine and closely related not only to the older eucaine "A," but also to cocaine, and especially to tropococaine. It is, however, less toxic than the latter drugs and its solutions are sterilised on boiling. It is soluble in warm water to the extent of 5 per cent. and, physiologically considered, its main difference from eucaine "A" is that its irritant effects are minimal.

Being interested to learn personally the action of this new substance, a 2 and 5 per cent. solution were procured and their action

contrasted with similar solutions of cocaine. First, three drops of a eucaine "B" 2 per cent. solution were instilled in my right eye, and three drops of a cocaine 2 per cent. solution in my left. The eucaine "B" caused a passing, burning sensation, more noticeable than that produced by the cocaine, though there was an absence of that peculiar stiffness experienced in the cocainised eye. The degree of anesthesia produced was about alike in either eye, though it took longer for the eucaine "B" to bring about its effect, and while the pupil of left eye became dilated from the cocaine solution, that of the right eye remained stationary. Furthermore, there was no congestion of the conjunctiva, which would surely have followed the instillation of a 2 per cent. eucaine "A" solution.

After the preliminary experiment upon myself I employed the eucaine "B" solution in three lachrymal cases and noted that the patients remarked that the drops caused more smarting than the ones used on former occasions, *i. e.*, cocaine, but that it was merely transitory, a passing unpleasantness. The eucaine "B" solution produced a satisfactory anesthesia and slight, if any, congestion of the conjunctiva; the cornea remained clear and did not show that roughness or shriveled appearance seen after the application of cocaine.

Later, Dr. Howe did an iridectomy. In this case six drops of a 5 per cent. solution of eucaine "B," one drop at intervals of two minutes, produced a successful anesthetic state, although the patient claimed that she felt the operation more than she did a similar one on the other eye, performed under the effect of cocaine, but it must be stated that in the former iridectomy ten drops of a 5 per cent. cocaine solution were the means by which the state of local anesthesia was brought about. There was no noticeable irritation or injection of the conjunctiva and beyond a preliminary smarting no uncomfortable effects were noticed.

In three patients with steel imbedded in the cornea, a 2 per cent. solution of eucaine "B" was used as a preliminary measure to removing the foreign bodies. In all cases the anesthesia was satisfactory, though not induced as quickly as that from cocaine. There certainly was no dilatation of the pupils, inappreciable if any, hyperemia of the conjunctiva, and slight smarting when first instilled into the conjunctival cul-de-sac.

The following conclusions, I think, may be drawn from the above cases: Eucaine "B" is an efficient local anesthetic and may be substituted for cocaine. It causes slightly more smarting upon

application and appears somewhat slower in producing anesthesia than cocaine. It does not dilate the pupil or cause cloudiness of the cornea as does cocaine. It does not irritate or cause conjunctival hyperemia, as does eucaine "A," but, like it, is sterilised by boiling and will keep for long periods.

As a result of some observations in nose and throat cases, Dr. Millener suggests that, while eucaine "B" produces a similar state of anesthesia as eucaine "A" and cocaine, it does not cause the irritation and congestion of the parts as does the former, though slower in its action than the latter. It is intensely bitter to the taste and not as soluble as eucaine "A," and whereas eucaine "A," when applied to the mucous membrane of the nasal cavities, causes a burning sensation and a slight watery discharge due to irritative properties, eucaine "B" does neither.

The hemorrhage resulting from a nasal operation, using eucaine "B," is not greater than one done under the effect of cocaine, though in the latter the hemorrhage may be delayed, due to the primary anemia of the parts, and perhaps the tendency towards hemorrhage is less, as the subsequent dilatation of the vessels, when cocaine is used, often causes profuse and prolonged bleeding, while in eucaine "B," though at first dilatation of the vessels is present, the secondary effect is that of constriction of the capillaries and cessation of the hemorrhage.

In a case of hypertrophic catarrh, he removed an hypertrophy of the lower turbinated on the left side, using a 5 per cent. eucaine "B" solution as the local anesthetic. Anesthesia was complete in six minutes. There was no apparent congestion of the parts and the bleeding, though severe for a minute or so, ceased quickly.

On the right side, same case, in removing a similar sized hypertrophy, eucaine "A" was used and it was noted that much congestion ensued on application of the solution, though the subsequent hemorrhage was not at all severe.

329 FRANKLIN STREET.

SERUM DIAGNOSIS OF TYPHOID FEVER.—Delépine, of Manchester, (*Universal Medical Journal*) emphasised the importance of using fresh cultures of the bacillus typhosus: he had noticed that old cultivations had of themselves a tendency to "clumping." To obtain such cultures the bacillus was grown on solid medium and fluid cultures were made from day to day as required. It was important to avoid the slightest contamination, and he considered a magnifying power of 300 diameters sufficient to observe the reaction.

Progress in Medical Science.

MEDICINE, PATHOLOGY AND THERAPEUTICS.

Conducted by a member of the editorial staff.

PROGNOSIS IN PNEUMONIA.

OSLER (*Amer. Jour. of the Med. Sciences*) shows that pneumonia is the most fatal of the acute infections of adults in temperate climates, the case mortality varying from 20 to 30 per cent. As to prognosis, age is very important; in children, for instance, the mortality, as quoted in Wells's statistics, is 1.9 to 3.3 per cent., while over 60 years of age the mortality is 50 to 80 per cent. Negroes show a higher death-rate, as a rule, than whites. Kidney disease was found to be present in 25 out of 100 autopsies observed by the author. Healthy adults seldom succumb; thus, in the German army the death-rate in 40,000 cases was only 3.6 per cent. Of the special points of prognostic importance, the degree of fever and the amount of lung-tissue involved are far less important than the toxemia. Toxemia has no constant relation to the extent of the lesion, and cases with profound toxemia show wide variations from the typical clinical picture, while the local features of the disease are often quite overshadowed. Such cases early show cerebral symptoms, and are met with especially in epidemics and among old patients. Sudden death may be due to the action of the specific toxins, which probably affect the heart-centers rather than the myocardium; symptoms of collapse may set in within the first twenty-four hours and rapidly prove fatal. The amount of lung affected, even though extensive, is a much less potent cause of death than toxemia. The depressing action of the toxins on the cardio-respiratory centers and the weakening effect of pyrexia on the heart-muscle are important factors during the crisis, and help to explain the fact that venesection in pneumonia is not attended with such good results as in emphysema, morbis cordis and the like. Against toxemia, which is the important cause of the high mortality, there are at present no reliable measures at our disposal.

PAROXYSMAL TACHYCARDIA.

A CHILD of eleven years was discussed by the London Clinical Society (*Med. Record*) on the 8th of January. The condition had existed for five years. The palpitation would come on suddenly

and cease quite as suddenly after a period of from one to fourteen days, during which the pulse beat would be 240 to 260 per minute. At times there was slight cyanosis; urine scanty; no valvular disease; no lues. Changes in the myocardium were blamed for the affection, which seems to be rare in childhood. In the discussion which followed, the possibility of nutritive disturbance of the heart center, in the medulla was suggested. It was also stated that in many instances, in which during life no heart affection was discoverable, an anatomical lesion of the myocardium would be made out at the autopsy. Disease of the nervous system does not explain paroxysmal tachycardia, since affections of the vagus itself do not give a pulse beat of over 150; the displacement of the abdominal organs likewise fails to explain the condition. As remedial measures, a vesicating plaster over the vagus, a combination of arsenic and bromide of ammonium, valerianate of zinc in beginning dose of two decigrams, and compression of the thorax and abdomen at the time of attack, were all recommended.

UNPLEASANT EFFECTS OF TRIONAL.

DR. F. KAEMPFFER (*Therapeutische Monatshefte*) relates the cases of four elderly persons suffering with cancer of the stomach or of the liver, with impaired nutrition, in whom fifteen grains of trional, instead of causing sleep, gave rise to a peculiar disturbance manifested by restlessness, anxiety, palpitation of the heart, and illusions, which lasted all night. In one of the cases a dose reduced to three-quarters of a grain produced a moderately sound sleep for six or seven hours; in the others, however, there was no change from lowering the dose, and an increase of it resulted in severer disturbance.—*N. Y. Med. Jour.*

PERIODICAL PAROXYSMS OF HICCOUGH.

S. FEILBERG (*Norsk Magazin for Lægeordenskab*) describes the case of a man, 42 years old, who suffered for several months from periodical paroxysms of hiccough, which entirely prevented his working and caused considerable suffering. After having searched in vain for the cause of the hiccough, the author finally found, at the base of the tongue, a tumor having three lobes, of which the central one, the largest, was about the size of a hazel-nut. These growths were due to a pronounced hypertrophy of the adenoid tissue at the base of the tongue, which caused, in addition to the hiccough, a continual sensation of fullness in the throat. There

was also enlargement of the palatal tonsils, which were excised without producing any noticeable improvement. Ablation of the central lobe of the lingual tonsil caused considerable amelioration of the hiccough, which ceased entirely after the extirpation of the lateral lobes.

ORDINANCE AGAINST COCAINE.

IT is reported (*St. Louis Med. and Surg. Jour.*) that the victims of the cocaine habit have become so numerous in Chicago that an ordinance has been introduced prohibiting the sale of remedies for catarrh and other diseases, which contain cocaine. In the last two months over forty victims of the drug have appeared in the police courts and elsewhere. Several of them have been well-known men and women who say they were brought to their present condition by using catarrh cures.

ATROPINE TO REDUCE THE TINNITUS AURIUM CAUSED BY THE USE OF QUININE.

DR. AUBERT has noted (*La Médecine Moderne*) that in three patients who had formerly suffered from tinnitus aurium due to quinine, the symptoms could at least be considerably diminished by adding atropine to the quinine. The amount of atropine prescribed by Dr. Aubert amounted to 0.0005 gramme ($\frac{1}{170}$ grain) daily.

THE DIAGNOSIS OF TUBERCULOSIS.

A CAREFUL study of 100 tuberculous cases, (A. Mansfield Holmes, *Medical Record*.) including all stages of the disease, has shown conclusively that the law that brings about disintegration in a tuberculous patient brings about the same process at an earlier date in tuberculous leucocytes. In these cases I have found (*a*) marked disintegration going on in all varieties of leucocytes and (*b*) a great decrease in the number of young cells. These conditions are evidence that the tissue-forming power of these cells is imperfect or defective. Hence, when these conditions exist in cells, we may be absolutely certain that a similar condition already exists or soon will exist in the larger organism. Therefore, from the condition of the various cell tissues observed in these cases, I feel justified in making the following

Deductions.—First, it is possible to estimate the degree of the tuberculous condition. Second, it is possible to estimate the degree

of the recuperative power. Furthermore, the phenomena upon which the foregoing deductions are based are as follows: (1) The degree of the tuberculous condition may be estimated by (*a*) the amount of deviation from the normal percentage of each variety of cells; and by (*b*) the amount of cell disintegration in each variety. (2) The degree of the recuperative power may be estimated by (*a*) the staining power of the nuclei; (*b*) the percentage of leucocytes with no evidence of disintegration; (*c*) a relatively high percentage of young cells; (*d*) the abundance of well-stained granules of the phagocytes; and (*e*) the abundance of eosinophile cells, rich in granules. I do not wish to give the impression that it is an easy task to interpret the phenomena presented in a specimen of tuberculous blood, and from them to reach a diagnosis. But it can be done. And when it is properly done, it furnishes a diagnosis based upon the fundamental principles of biology. Hence, from a study of the foregoing cases, I feel justified in claiming that the blood, aided by the microscope, together with a uniform and accurate technique, furnishes a means of making a positive diagnosis of the tuberculous condition early enough to allow of effective treatment.

TUBERCULOSIS.

As MY view of the origin of tuberculosis (*Cincinnati Lancet-Clinic*) is at variance with established teaching, perhaps a simple statement of belief is necessary.

1. Tuberculosis is a constitutional disease, dependent largely on the evils of civilisation, and governed by the following law: The death-rate from tuberculosis is in direct ratio to suspension of atmospheric influence.

2. The suspension or abeyance of atmospheric influence may take place from within or from without. From without through impure or impoverished atmosphere; from within through defective lung tissue, original or acquired.

3. Abeyance of atmospheric influence, in whatever way induced, causes a depraved tissue or dyscrasia, through which the tubercle bacilli enter and grow.

4. The growth of tubercle bacilli, being dependent on the precedent state or condition of the individual, is never *per se* the primary cause of tuberculosis.

5. Tuberculosis may exist, though infrequent, in the absence of tubercle bacilli, but can never exist without the precedent state or condition.

6. The plant growth being a secondary condition or modifying influence in this most fatal disease, treatment directed against this growth must ever remain barren of permanent curative results and dangerous to the patient.

7. The precedent or primary condition being subject to law, and under control, tuberculosis is under control.

A question is anticipated. If tuberculosis be under control, why don't you control it? *Why don't you control it?*

The control of tuberculosis pertains to no one physician, only in pointing out the way. These seven propositions point the way, and on these the writer rests.

FORMULE.

By H. E. SANDERSON, Ph. B., M. D.,

Assistant physician State Asylum for Insane, Stockton, Cal.

LOCAL ANESTHETIC.

THE following combination is said to be almost magical in its action :

Chloroform	12 parts.
Tinct. of aconite.....	12 "
Tinct. of capsicum.....	4 "
Tinct. of pyrethrum.....	2 "
Oil of cloves	2 "
Gum camphor	2 "

Dissolve the camphor in the chloroform and add the oil of cloves, and lastly the tinctures.—*Medical World*.—*Medical Age*.

FRODIUM CICUTARIUM FOR UTERINE HEMORRHAGES.

AN INFUSION of this plant, made from one part of the plant with twelve parts of water, is said to be more powerful than ergot. A dessertspoonful is given every two hours.—*Journal des Practiciens*.—*New York Medical Journal*.

VULVAR VEGETATIONS.

Pulv. savin	1 gm.
Alum. dessicat	25.0 aa
Hydrarg. chlorid. corros	1.0

A more active application is the following :

Pulv. savin.....	} Equal parts.
Iodoform	
Acid salicylic.....	

—*New York Medical Journal*.

BITES OF FLEAS, MOSQUITOS AND BEDBUGS.

Olei olivæ	20 gm.
Ungt. styracis	25
Balsam. Peruvian	5

—*Medical Record.*

LUPUS ERYTHEMATOSUS.

Liquor potassii arsenitis	1 part.
Aquæ	6 parts.

Sig.—Apply twice daily.—*Gaz. Hebd.—Medical Record.*

A CORRIGENT IN CHLOROFORM AND ETHER INHALATIONS.

DR. E. FRAENKEL (*Tag. des Operat. Gynäköl.*) recommends the following formula :

Morphine hydrochloride	2.0 gr.
Atropine sulphate	0.2 “
Chloral hydrate	3.5 “
Distilled water	210.0 min.

Sig.—Inject subcutaneously, from 1 to 1½ grammes, shortly before anæsthetisation.—*Centralblatt f. Chirurgie.*

EUCALYPTUS IN STRYCHNINE POISONING.

A DECOCTION of eucalyptus is of great value and may be used for lavage of the stomach in cases of strychnine poisoning.—*Echange.*

COLLODION FOR HEMORRHOIDS.

DR. SAMWAYS recommends, in the *British Medical Journal*, the use of styptic collodion, applied on cotton-wool to the hemorrhoids each morning after defecation.

THE VALUE OF CAMPHORIC ACID IN THE TREATMENT OF NIGHT SWEATS.

H. A. HARE (*Therapeutic Gazette*) says : In the January issue of the *Edinburgh Medical Journal* my favorite friend, Dr. Ralph Stockman, contributes a paper, in which he notes the value of camphoric acid in the treatment of night sweats, and quotes considerably from foreign literature on this subject in support of his own clinical experience.

The writer of this article has on several occasions, in papers which have been published, and every year to his class of medical students, emphasised the value of this remedy as an antisudorific.

His first experience was in the wards of St. Agnes' Hospital during 1890-91, where he found, as Dr. Stockman has, that it controlled the sweats of tuberculosis in the great majority of cases and did not produce any disagreeable symptoms whatever, such as are usually caused by atropine or other powerful antisudorifics. He also, in the first edition of his Text-book of practical therapeutics, published in 1891, spoke of the value of this drug for the purpose, and in *The Medical News* of April 4, 1891, he contributes a paper, in which he details two cases which have been markedly benefited by very moderate doses of the drug. He pointed out in this paper that twenty grains was usually quite sufficient to control the sweat, provided it was given early enough to be absorbed before the time of the sweat was reached; and he also pointed out, what other Continental observers had previously noted, that as much as sixty grains of this drug may be given without deleterious effect. A continued large employment of camphoric acid in the six years that have succeeded this report has still further confirmed his high opinion of this remedy: it will fail in some cases, but no remedy has been met with which in his hands so universally succeeds. It may be given in cachet, dissolved in whisky or brandy, or placed in dry powder upon the tongue and washed down with a little water or milk; but as it is slowly absorbed it should be given an hour or two before the time at which the sweat usually comes on. The writer has also found camphoric acid of great value in the treatment of idiopathic ptyalism as is sometimes met with in young children, as it controls the salivation without disordering the digestion.

TREATMENT OF TYPHOID FEVER.

SO MANY inquiries have been received by us (*Memphis Medical Monthly*) and the Sisters of St. Joseph's Hospital, Memphis, relative to the treatment of typhoid fever, so successfully used by the former house-physician of that institution, Dr. Alfred Moore, that we reproduced the prescription from the March issue of the *Monthly*:

R	Salol	ʒi.
	Thymol	xxxvj. gr.
	Bismuth subnitrat.....	ʒij.
	Muc. acaciæ.....	ʒij.
	Syr. tolutan	ʒiv.

M. S. Tablespoonful three times daily.

CASES OF GALL-STONE.

RUTHERFORD MORISON, of Newcastle-on-Tyne, (*Universal Medical Journal*) emphasised (as Osler and he himself had previously done) the absence of pain as a prominent symptom in many of these cases. (1) A woman, aged 44, had suffered from jaundice for some months; pain had been present only at its onset; every time she rose she had a rigor and jaundice increased. There was a history of previous recurrent attacks of colic. On physical examination the liver was found enlarged, but no sign of distension of the gall-bladder could be made out; at the operation the common duct was found blocked by a stone, the gall-bladder empty, contracted, and with dense, thickened walls. (2) A woman, aged 49, had suffered up to thirteen months previously from spasms of abdominal pain; since then had lost flesh and noticed a tumor in the right side. On examination a movable tumor, the size of a cocoanut, was felt in the right hypochondrium, while at the operation a calculus was found blocking the cystic duct and enormously distending the gall-bladder. In this case there had been no jaundice. (3) A woman, aged 50, had suffered for two years from attacks of abdominal pain. Jaundice had supervened and was increasing rapidly, and a small tumor could be felt in the right hypochondrium. At the operation the gall-bladder was small and contracted, but there was a thin-walled diverticulum (the tumor felt), which contained a stone, as also did the common duct. An interesting comparison was drawn between the effects of complete and partial occlusion of the biliary passages on the gall-bladder, and those of analogous urethral obstruction on the urinary bladder. It was pointed out that in cases of obstruction of the common duct it was rare to meet with dilatation of the gall-bladder.

A REPORT OF CASES OF SUN-STROKE DURING THE SUMMER OF 1896.

THE cases under consideration, reported by N. R. Norton, of New York, (*New York Med. Jour.*, March 6, 1897,) occurred in the wards of the Presbyterian Hospital, in the service of Dr. J. P. Thornley. During six days, from August 8th to 13th inclusive, about 110 persons were brought to the hospital suffering from the excessive heat. In the mild cases cold water was given, with which they sponged their heads and chest, and they were kept in a cool room and left the hospital in from fifteen minutes to twelve hours. The severer cases, with a temperature of 104° F. (40° C.) or over, numbered 61, with 9 deaths—a mortality of 14 $\frac{3}{4}$ per cent. In these

hydrotherapy and skilled and careful nursing were the chief factors; the very frequent recording of the temperature, enabling the baths to be given at the earliest and, therefore, most valuable time; the use of the ice tub-bath, with constant and general friction of the entire surface, thus reducing the temperature in the shortest possible time, and being stimulating rather than depressing; the use of the same bath for all severe secondary elevations of temperature, and for the minor elevations sponge-baths of ice-water or of water at from 70° to 80° F. (21.1° to 26.7° C.), depending upon the individual case; and the repetition of these baths whenever the temperature is high enough to make them seem advisable.

All other means seemed entirely inadequate.

The severity of the epidemic, the large number of cases occurring in so short a time, and the crowding consequent to such an emergency make the low death-rate of 9 in 61 cases (11 not tabulated), or $14\frac{3}{4}$ per cent., extremely gratifying.

In this hospital, from August, 1888, to April, 1896, there were 22 cases of insolation with temperatures corresponding to the arbitrary standards adopted above, with 9 deaths—a mortality of 41 per cent. At the Pennsylvania Hospital, in the summer of 1887, there were 31 cases, with 12 deaths—a mortality of 35 per cent. A report by Swift, of 150 cases, records 78 deaths—a mortality of 52 per cent.

A comparison of these records shows the importance of noting, if possible, any points in the treatment of cases in the epidemic of the past summer which could, in any way, account for the marked difference in mortality.

SOME CASES OF ASTASIA-ABASIA.

CHARLES PETREN reports (*Hygieia*, Vol. LVIII., No. 11, pp. 515 to 547, 1896.) several cases, of which the first was an unmarried woman, 28 years of age. This he considers as one belonging to the chorea-like variety.

Case 2.—A single woman, 22 years old; also a case of chorea-like abasia.

Case 3.—Unmarried woman, 47 years old—a case which showed unmistakable partial abasia, complicated with hysterical stigma.

Case 4.—Man, 69 years of age, which the author considers as one of trepidating abasia.

With regard to the nature of the disease, it seems to the author that any anatomical alteration in the spinal cord as cause of the

disease must be definitely excluded, and that a similar alteration in the brain may be regarded as improbable. Abasia must, therefore, be considered as a dynamic disease. Walking being, in all probability, a function of the brain, the author furthermore believes that abasia is due to a disorder of that organ, and that even that disorder is of a psychical nature, the more so since the motor derangement is manifestly systemic and limited to a certain system of movements. He cites a case as an example of a systemic paralysis, which is quite the contrary of abasia. For the time being no other conception seems to the author to be legitimate than to consider the abasia as a manifestation of hysteria—that is to say, the cause of the abasia must be looked for in that portion of the mental life which is distinct from consciousness, or, in other words, in the non-dominion of the conscious part of the life of the soul over the psychical processes.

MEDICAL EDUCATION AND STATE LICENSE EXAMINATIONS.

CONDUCTED BY WILLIAM WARREN POTTER, M. D., Buffalo, N. Y.,
Examiner in obstetrics, New York State Medical Examining and Licensing Board.

THOMAS McDAVITT, M. D., of St. Paul, read a paper before the Minnesota State Medical Society, June 17, 1896 (*North-western Lancet*), in which he gave a retrospective review of the medical legislation in the United States. He said less than twenty years ago practically any one could practise medicine anywhere in the United States. Owing to the efforts of the Illinois State Board of Health, which were only the crystallised ideas of its lamented secretary, John H. Rauch, the idea became a working force that a change was necessary in the manner of admitting M. D.'s to practice. Practice had demonstrated that the average medical college was only a diploma mill. A great majority were run on purely a commercial basis. Many were stock concerns, the stock owned by the different professors, and the more matriculants the more dollars. The more matriculants permitted a diploma this year the more matriculants next year. The announcements of most colleges, theoretically, asked preliminaries altogether too low, and asked no questions at all when the party matriculated. In days not far back two winter terms of five months each brought the legal qualifications to deplete the population, and we now look back with shame to the time when an ignorant individual, never having looked into a

medical book previously, could take one winter term of five months and immediately go to a spring term school and come out in the early summer a full-fledged, duly-authorised M. D., and could force his ignorant and unworthy self on any community of this country.

The earliest effort at increasing the time of study was due to the efforts of that "grand old man," N. S. Davis, at the organisation of the Chicago Medical College in 1857 or 1858. The faculty advised three terms, but permitted two. Each year saw an increasing number taking three terms. Soon Harvard came into line, urging three terms, and very soon afterward demanding three terms. The low grade schools were, however, manufacturing doctors by the score and the suffering public was forced to submit. The efforts of the Illinois board to attempt to a certain extent to throw safeguards around the public, in the way of looking into the genuineness of the different diplomas held by so-called M. D.'s, were met with hostility not only by the quacks and ignoramuses, but many medical schools fought the idea that they should be under any supervision whatever and their own sweet will should be the only determining factor.

Previous to this time ideas on this question were at such a pass that a number of so-called schools absolutely sold diplomas for so much cash without the possessor ever having seen the inside of a college. These fake diploma shops were finally shut up, but much sympathy was expended on them. Many of them were closed by the admirable and far-reaching work of the Illinois board, and, as said before, it may be regarded as pioneers in medical legislation.

Virginia and North Carolina introduced legislation quite early. Minnesota followed with her law of 1883, which accepted diplomas. It was soon evident that legislation was necessary before many of the so-called first-class colleges would ever increase their curricula. Our state had suffered from the effect of poor M. D.'s, from poorer medical colleges, and our best men recognised that a change must be made at the fountain-head—the medical colleges—although it might be unfair to a few of their graduates. Several of our best men, by the force of their arguments, got the law of 1887 passed, even against the opposition of many of the legislators and, undoubtedly, many of the people. This law made three regular terms at a medical college, of at least six months each, necessary before the candidate was even eligible for examination. This was executed without fear or favor and, while it prevented many from taking the examination, in the end it accomplished what was

intended—namely, raised the standard to three years. The feeling exhibited by many colleges was intense and two of the largest pooled their issues, retained counsel to fight the law, but said counsel soon advised dropping the fight. Almost all points of our law have been decided by the supreme court and declared constitutional. At our last legislature an amendment was passed increasing the terms necessary before a party was eligible for examination to four terms after 1899. Four terms are also necessary in the Medical College Association before a college can become a member.

The great point now is to force a certain amount of preliminary education before a person is eligible for matriculation in a college, and it appears that legislation will be necessary, and its execution placed in the hands of the different boards, before many colleges will adopt it. The lukewarmness with which many colleges look upon any efforts to increase the standard, or even maintain it, is one of the crying evils of the time. There is no denying the fact that the most potent element of evil in medical education at present is the unnecessary number of the medical colleges. What right many of them have of existing is an enigma. We all know of many examples of so-called colleges without apparatus, or facilities for teaching, generally located in small-sized towns, without adequate clinical advantages. In another city of 400,000 or 500,000 twelve or fifteen medical colleges can be pointed out. In our whole country, 140. The great medical need of the country is the revoking of numerous charters, the increasing of the standard of those which remain, and the elevating of our profession to that of a learned profession. The effort to force the colleges to a higher preliminary standard, as well as a four-term course (in accordance with our Minnesota law), is indicated in the following resolutions by the Illinois state board :

RESOLUTIONS OF ILLINOIS STATE BOARD OF HEALTH.

Conditions of admission to lecture courses :

First.—Credible certificate of good moral character signed by two physicians of good standing in the state from which the applicant comes.

Second.—A diploma or certificate of graduation from a high school; evidence of having passed the matriculation examination to a recognised literary or scientific college, or a certificate of successful examination by the faculty of any reputable university or college, or by the state superintendent of public instruction in the following branches: English grammar, arithmetic, elementary,

physics, United States history, geography, Latin (equivalent to one year in a high school). One year is allowable in which to cure defects in knowledge of Latin, but the student must be provided with a certificate of proficiency in this branch of learning from the designated authorities before he can be accepted as a second course student.

Resolved, That graduates of dental surgery, pharmacy and veterinary medicine may be entitled to credit for one year's study in said recognised colleges, on complying with their entrance requirements and passing examinations in all the branches embraced in the previous years of study.

Resolved, That as a further condition of the recognition of any medical college as in good standing the college shall furnish the secretary of the State Board of Health or State Board of Medical Examiners, on or before January 1st of each year, a complete list of all its matriculants, together with the basis upon which each applicant matriculated, giving the name of the institution from which the degree or certificate of graduation was obtained, or the name of the state official conducting the examination, or the university or college conducting examinations, or the college previously attended, together with the date when the degree or certificate was issued. This list to be sworn to by the executive officer of the college and attested by the secretary, under the seal of the college.

Resolved, That students who have heretofore attended full courses of instruction in non-recognised medical colleges may be admitted to advanced standing in recognised medical colleges, complying with the entrance requirements of said recognised medical colleges, and passing other examinations in all the branches in the previous years of study.

Resolved, That no medical college shall be recognised as in good standing for the purposes of the Illinois Medical Practice Act that does not require of all matriculants after January 1, 1897, as a condition of graduation, four (4) full courses of lectures in four (4) separate years.

The synopsis of present states with their legislation indicates the change of less than twenty years from no legislation until there are only five or six lagging behind. The statistics are partly due to an article in the *Bulletin of American Academy of Medicine*, by Dr. Charles McIntire, Easton, Pa. Although written in December, 1895, there have been laws passed in some places which had none then.

TABLE I.

a. States and territories whose medical laws practically permit any one to open an office to practise medicine :

Alaska, Arizona, Kansas, Michigan, Nevada, Texas, Wisconsin and Wyoming.

b. States and territories which merely exercise a supervision of the diploma held by the person desiring to practise medicine :

California, Kentucky, Missouri and Nebraska.

c. States and territories which require an examination for license, but accept the diplomas of certain colleges as evidence of that examination :¹

District of Columbia, Ohio, Arkansas, Colorado, Connecticut, Illinois, Indian territory, Choctaw Nation, Florida⁵, Iowa, Massachusetts, New Mexico, Oklahoma, Rhode Island, South Dakota, Tennessee, Vermont, Idaho, Indiana and New Hampshire.

d. States and territories that require passing an examination before a state board of examiners before issuing a license to practise medicine :²

1. A single board of examiners :

Alabama,³ Indian Territory, Cherokee Nation,⁴ Maine, Minnesota, Mississippi, Montana, New Jersey, North Carolina, North Dakota, Oregon, South Carolina, Utah, Virginia, Washington, West Virginia.

2. Two or three boards of examiners, one of them homeopathic and another eclectic :

Georgia, New York and Pennsylvania.

e. States from whom no reply has been received to letters of inquiry :

Indian Territory, Creek Nation.

THE STATE BOARD OF PHARMACY.

ONE hundred and sixty-six candidates (*Northern Druggist*, May, 1897,) appeared before the board for examination on February 19th, and of this number sixty-three were passed and 103 were rejected. Of the successful candidates fifty were licensed as pharmacists and thirteen as assistant pharmacists.

1. It must be remembered that each state determines for itself the colleges whose diplomas will be accepted.

2. In some states the candidates for examination must possess the certificate of graduation from a medical school (if an American school the degree of M. D.); other states make the examination the sole criterion of fitness to practise.

3. Each county has its board of examiners.

4. There is a board for each judicial district.

5. Florida has one board for each judicial district and a homeopathic board for the state at large.

MEDICAL STUDENT EXAMINATIONS IN ILLINOIS.

THE Illinois State Board of Health no longer allows medical colleges to examine students in general education on matriculating. If the prospective medical student is not a graduate of a high school or some institution of equal rank, or has not passed the entrance examination to some recognised literary college or university, he must submit to an examination by the faculty of some reputable literary college or university in the common English branches and in first year Latin.

TENNESSEE AND CHRISTIAN SCIENCE.

IN A BILL proposing amendments to the Tennessee medical practice act we note the following:

Section 8. Be it further enacted, That any person shall be regarded as practising medicine or surgery, within the meaning of this act, who shall use the words or letters, "Dr." "Doctor," "Professor," "M. D.," or "M. B.," in connection with his or her name, or any other title intending to imply or designate him or her as a practitioner of medicine or surgery in any of its branches, and who, in connection with such title, or titles, or without the use of such titles, shall prescribe, direct, recommend, advise, apply, give, or sell, for the use of any person or persons, any drug or medicine, or other agency or application for the treatment, cure or relief of any bodily infirmity, injury or disease; and it is further provided that the use of any one of the aforementioned titles, or the exposure of a sign, circular, advertisement or any other device or information, indicating thereby the occupation of the person or persons, shall be considered *prima facie* evidence; and it is further provided that the provisions of this act shall apply to all persons professing and attempting to cure diseases by means of the so-called systems of "faith-curism," "mind-healing," "laying-on-of-hands" and all other similar systems.

This is the first attempt to dispose of christian science fiends by legislative enactment that we have observed. We understand the amendments have been passed.

IDAHO PASSES A GOOD MEDICAL LAW.

IDAHO secured a Medical Examining Board and law March 8, 1897, (*Indiana Medical Journal*), during the expiring hours of the session, by a unique ruse. The State Medical Society purchased a diploma from the Rutland, Wis., diploma mill outfit for \$35.00, which the Hon. J. J. Rogers whipped out and triumphantly waved before the house when it was contended that a diploma was enough to satisfy any reasonable requirements. When Representative

Rogers asserted he had just been made an "M. D." for so small an expenditure of time and money, the hordes of quacks opposing the bill were paralysed, and the members fell over each other in their desire to vote for the bill. Governor Steunenberg declined to veto the bill and it is a law. The board has three regulars, two eclectics and one homeopath. The license fee is \$5. The board may refuse license for unprofessional, criminal, immoral or dishonorable conduct.

Unprofessional or dishonorable conduct is defined to be abortion work; employment of cappers or steerers; taking a fee for a promise to cure an incurable disease; wilful betrayal of a professional secret; advertising untruthful or improbable claims; advertising to restore the menstrual flow; conviction of criminal offense; habitual intemperance in stimulants and drugs. The penalty for violation is \$50 to \$300, or ten days to six months, or both. The law is far more stringent than that of Indiana.

Itinerant vendors of any drug, nostrum, ointment or other remedy, appliance or apparatus, or anyone printing, publishing or claiming publicly or privately to treat, palliate or cure disease, injury, deformity or defect by drugs, nostrum, manipulation or other expedient or apparatus, for gain, directly or indirectly, shall first procure a license, paying \$50 per month. Such fund goes to the school fund. Penalty is provided for evasion of this provision. Traveling eye specialists, spectacle vendors and opticians are classed under this provision.

The present act was passed upon and approved by the joint judiciary committee of the two houses, and is no doubt constitutional. It was fought by all the quacks in the state, and even a few misguided practitioners of standing. Money was plenty to destroy it, if possible.

Major W. M. Wood, M. D., U. S. A., present president and chairman of the committee on judiciary of the Idaho State Medical Society, had prepared an unanswerable memorial from the society, which, at the appropriate time, was presented to the legislature. This had been carefully printed, and its distribution made many converts. In fact, if it had not been for the use of money, it is doubtful if there would have been any answer made to the arguments. As it was, the quack interest was on hand strong and powerful, and Dr. Sweet and Dr. Wood, who marshaled the outside forces, went into the fight of their lives, which lasted throughout the entire sixty days' session, and up till 2 A. M. the last night, and then only won as the legislature was closing.

BUFFALO MEDICAL JOURNAL.

A Monthly Review of Medicine and Surgery.

EDITORS:

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

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No. 11.

ANNUAL COMMENCEMENT OF NIAGARA UNIVERSITY MEDICAL COLLEGE.

THE twelfth annual convocation of the medical department of Niagara University was held on Wednesday, May 12, 1897. Following our usual custom we give a detailed account of the exercises, which each year becomes a part of the history of medicine in Buffalo. The value of such a record in the JOURNAL will be more and more appreciated by both faculty and alumni as years advance.

ALUMNI ASSOCIATION.

The annual meeting of the alumni association was held at the college building, on Ellicott street, and began at 10.30 o'clock A. M. with an address of welcome by Dr. John Cronyn, president of the medical faculty. In his address Dr. Cronyn said that the function of an alumni association was to stimulate the interest of the graduates in their alma mater. A plan of work, he said, was necessary to the success of an alumni association and he suggested that the association prepare today for the work of its next meeting. Dr. Cronyn talked briefly about the work of the graduates after they have begun practice.

In the absence of the president, Dr. Jacob S. Peterson, of New York, the president's annual address was omitted. The first vice-president, Dr. Frank W. Maloney, of Rochester, presided and during the business session the following-named officers were elected to serve during the ensuing year: president, Dr. Frank W. Maloney, of Rochester; first vice-president, Dr. Frederick A. Hayes, of Buffalo; second vice-president, Dr. William G. Taylor, of Buffalo; secretary, Dr. J. G. Ernest, of Buffalo; treasurer, Dr.

Frederick M. Boyle, of Buffalo ; executive committee, Drs. Joseph J. Finerty, J. Henry Dowd and Henry C. Buswell, all of Buffalo.

The afternoon session opened at 3 o'clock, when the following program was disposed of : Among the paupers, Alfred W. Bayliss, M. D. ; The importance of insurance medicine, Frank W. Maloney, M. D. ; The Balanos or distal inch, B. H. Daggett, M. D. ; Chronic specific nrethritis, J. Henry Dowd, M. D.

Great credit is due to the executive committee, composed of Dr. J. J. Finerty, chairman, Drs. Frederick A. Hayes and J. G. Ernest, for the successful alumni meeting and for the complete arrangements for the banquet at the Genesee in the evening.

GRADUATING EXERCISES.

The graduating exercises were held at the Star Theatre on the evening of commencement day, beginning at 8 o'clock. The theatre was crowded at an early hour and soon after the time appointed for the beginning of the exercises members of the faculty and the speakers of the evening seated themselves upon the stage. When the curtain went up, the graduates took their places in the first row.

Dr. John Cronyn officiated as master of ceremonies.

The valedictory address was delivered by Dr. John A. Miller, professor of medical chemistry and toxicology at the university.

It was announced that Right Rev. James E. Quigley, D. D., chancellor of the university, would confer the degrees, but he was unable to attend and appointed Rev. Father McLale, president of Niagara University, to act in his place.

The names of the candidates were then called by Dr. H. A. Wood and the degrees were conferred. The new graduates are Alexander McNeil Blair, Pierce John Candee, Charles Joseph Mengis, William Keating O. Callaghan, Walter Landor Savage, Henry Edward Stadlinger, Buffalo ; Leonard Ezra Curtice, Springwater, N. Y. ; Arkadius Prokofieff Jukowsky, Russia ; William John O'Donnell, Ellicottville, N. Y. ; Mary O'Malley, Barker's, N. Y.

The manner of conferring the degrees is by the ancient rite of hooding, which is widely used in English universities. Each candidate is introduced by a graduate to the chancellor in a few set Latin words. The candidate then kneels and the chancellor takes him by the hand and replies to the introduction. While the candidate is kneeling, another graduate, acting as beadle, hoods him.

After this ceremony the class took part in the affirmation of the pledge to promote morality and philanthropy, as well as to continue zealous in their profession.

The annual address was delivered by Rev. Frank S. Fitch, pastor of the First Congregational Church. He made a profound impression upon the class as well as on the audience which overflowed the capacity of the house. He congratulated the class members, not only upon their advent into the field of medicine, but into that of philanthropy also. He believed, notwithstanding the current opinion, that physicians did more good for less financial remuneration than any other body, excepting, perhaps, the ministry. The address was replete with sound advice and noble sentiment.

Rev. Father McHale, of Niagara Falls, followed Mr. Fitch with a short and timely address.

Drs. Callaghan, O'Donnell and Stadlinger led this year's graduating class. Dr. Callaghan secured the highest marks in his class. In four subjects he was marked 100 and the rest of his standing was high. He is very popular at the university and received the hearty congratulations of his many friends.

Dr. O'Donnell, one of the surgeons at the Emergency Hospital, stood first in his class. He also received 100 in four subjects. He is the poet and orator of the university. Dr. Stadlinger was applauded loudly when his name was called and he had received his degree. He is a diligent student and made a splendid record.

Dr. Mary O'Malley, distinguished as the only woman graduate, deserves personal mention as a close student.

THE BANQUET.

At the close of the commencement exercises, the alumni and faculty adjourned to the Genesee, where they enjoyed the alumni banquet.

The visiting graduates included many from nearby and distant cities. Among the guests were Dr. N. G. Richmond, of Fredonia, and Dr. F. W. Ross, of Elmira.

Covers were laid for about seventy. At the conclusion of the material feast, which was near midnight, Dr. Frank W. Maloney, of Rochester, first vice-president, acting as toastmaster introduced the speakers, each in a few well-chosen words. The following toasts were responded to: The University, Rev. L. A. Grace; the Faculty, Prof. Eugene A. Smith, M. D.; Legal Medicine, Mr. E. R.

O'Malley ; The State Medical Examining Board, Dr. William Warren Potter ; The Medical Profession, Dr. L. A. Weigel, Rochester ; The Clergy, Rev. Frank S. Fitch ; The Press, Mr. B. Frank Coe ; University Board of Examiners, Dr. Frank W. Ross, Elmira ; The Graduating Class of '97, Dr. Pierce Candee.

It was long after midnight when adjournment came and there were many expressions of approval on all hands at the eminently successful closing of the thirteenth academic year, the pleasant conduct of the convocation ceremonies, and of the delightful banquet that crowned the whole in fitting manner.

SOME OF THE DANGERS OF BICYCLING.

THE advantages to be derived from bicycling as a means of locomotion and pleasure are counterbalanced by the disadvantages arising from this sport. Aside from the accidents consequent to reckless and inexperienced riding, the health and happiness of many riders, especially ladies, are imperiled by an indiscriminate use of the popular wheel. The bicycle itself is as harmless as a watch, but when entrusted to ignorant or innocent riders becomes a dangerous instrument.

Perhaps the first great fault committed, or the first misstep, is for the individual to decide whether or not he or she is able physically, perhaps mentally, sometimes morally, to ride a wheel.

The fact that a certain friend rides is usually taken as the test and "if he or she is able to ride ten, twenty or thirty, or even fifty miles per day, certainly I can ride five miles." The next misstep is the obtaining of advice and opinion, and instead of consulting the family physician the bicycle dealer is chosen as the trusted adviser. In his desire to make a quick sale, because his season lasts only while the sun shines, he perhaps unconsciously suggests a wheel which is as much appropriate as the traveling optician's spectacles are to his unsuspecting purchasers.

Granted that there exists no organic disease of any of the vital organs, nevertheless the whole system may be in such a relaxed condition as to yield to any extra strain that may be put upon it. In this connection mention might be made to the cardiac accidents, where no valvular lesions are discoverable, due to want of tonicity in the cardiac muscles, resulting in dilatation, rupture or even valvular laceration. Another series of disturbances arise from the continuous strain or tension of the rider to keep the wheel erect.

The tension is not so very pronounced at any one time, but exists as long as the wheelman is astride his wheel, and the long continuance acts to disadvantage. To ride a wheel safely calls forth a double strain, a general one on the nerves and a particular one on the balancing center. The latter strain is as injurious as the former and a long train of nervous symptoms, neurasthenic in character, is the result. The "bicycle face" has been applied to the expression of riders who suffer from these nervous accidents.

Many bicyclers assert that they ride only moderately and yet have no idea what moderation means. To some it may be a two-mile spin, to others ten miles. Pedaling is so easy, the roads in such good condition, the summer scenery so enchanting, that the milestones pass by before fatigue sets in; when it does, the rider is generally at the distal end of the route and the return home is made with the system relaxed and fagged out or refreshed by means of alcoholic stimulants. It is a fallacy to make muscular effort the measure of excess and moderation in this form of exercise.

These are but a few of the dangers lurking in the bicycle even when the adjustment, saddle, handle-bars and gearing are fitted to each individual rider. That such is however not the case, may be judged from the following editorial extract from the L. A. W. Bulletin :

"No person should actually buy a bicycle until they can ride. When the beginner has mastered the rudiments of the art of keeping the wheel upright without assistance, the dealer of the future will have a device with pedals, handles and saddle, upon which the would-be purchaser will be asked to sit. The height of saddle will be adjusted while the rider is in position, as will also its fore and aft location; then the length of cranks will be adjustable while they are in motion. Various styles of saddles will be so fitted that they may be exchanged one for the other instantly while the rider stands on the pedals. A friction scale arrangement can be fixed so as to give to the pedals the same resistance they would meet on grades of varying steepness.

With a machine of this kind the most comfortable saddle, the proper location of it, the proper length of crank, and the most suitable gear for any given rider can be determined in a few minutes, so that when a wheel is delivered the customer will get the most out of cycling, and hence be a better advocate in the sight of others, and the dealer and the manufacturer will have less complaints."

WOMAN'S PLACE IN MEDICINE.—Remarks of Dr. Maud J. Frye at the banquet of the Alumni Association of Buffalo University Medical College, April 27, 1897, to the sentiment "Me judice" :

I wish to present to you tonight some thoughts concerning woman's place in medicine ; the limit of her work, the line which she will oftenest follow.

Whether we like to confess it or not, woman's physical organisation necessarily sets a limit to her achievements. The women of Colorado who propose to serve in the National Guard of that progressive state, will probably remain to the end as they have been from the beginning, a home guard. In reckoning the chances of woman's success when she comes into competition with man, the physical factor has always to be taken into account. That medical work which makes the least demand on woman's physique is, other things being equal, that in which she will best succeed.

It is, however, concerning a feature of woman's mental equipment for work in medicine that I wish especially to speak. I do not expect many of you to agree with me, yet I ask you to think on these things. We must acknowledge between the average man and the average woman an unlikeness of mental capacity comparable to their physical unlikeness, a sex in mind, if I may use the term. This is not equivalent to saying that man is superior to woman. There is equality with diversity. The elm is not better than the oak, nor the oak than the elm, but each is good of its kind. There are mental processes which are identical in the sexes, there are others which may oftentimes give advantage to the woman in the work of the physician. Does the woman's way of seeing and doing ever handicap her? Let us try to answer the question.

There is one quality which more than any other makes for success in certain lines of medical work. It is the type of courage more or less common to all men, rarely found in women—the courage which dares. It is the courage of the soldier, and the explorer. It is the courage which makes possible the great surgeon.

On the other hand, through all time woman's genius has given this character to her work, that it has not turned to great deeds but has contented itself with the humbler, often holier, tasks of the home, the school-room and the sick chamber. Her courage makes possible trained nursing, and in the Christian world is the right arm of the church. It is the courage whose other name is patient endurance.

In the early days when the woman who began the study of

medicine was of heroic type, her success was assured from the beginning, for the courage which dared to commence the struggle was equal to any hardship or any emergency which arose later. She has opened the way for the woman of average ability, the woman who but for her pioneer work would be teacher or nurse. The average woman has not, as a rule, the daring of an Elizabeth Blackwell. The test of fitness for medical work which college and early professional life gave the one is denied the other, and the open door to medicine is not altogether gain.

The lack of daring does not make a physician less trustworthy, nay rather she may be more worthy of trust, but the lack does not work to her material advantage. There are departments of medicine, notably bacteriology, for which not only woman's type of courage, but her whole manner of training, from her youth up, should eminently fit her and in such work as this I believe she will excel. But the woman who gains wealth and fame in the practice of general medicine or of surgery will be the woman who possesses, without necessarily losing anything of her outward womanliness, the masculine type of courage. She will be the woman who would rather be wrong than not try. The average woman would rather not try than risk being wrong.

There is a special message which I wish to give to the young women receiving their diplomas tonight. It is concerning your work among women. Whether you intend to be a gynecologist or not, every woman who enters your office expects you to be. Setting aside your right to do whatever you can and desire to do, the fact that women wish women physicians is the only reason for your being such. You will come to feel later the great power for good—not altogether in a professional way, but as friend and counselor—which is yours, for the good woman who is a good physician has before her, in teaching to her sex right ways of living and true views of life, a work which will bring satisfaction to herself and blessing to others.

To the end of time there is to be marrying and giving in marriage, and except for the woman of unusual talent wifehood and motherhood are of themselves a vocation. Because of this and because other occupations demanding less of her physically and mentally and offering quicker success are open to woman, the number of women physicians will always be few. Yet whether we ever occupy a great place in medicine or not, a place is ours. We are better women for the knowledge of humanity which our

work has given us. May we not hope that humankind will be the better, too, for our having wrought !

“ All service is the same with God—
To God, whose puppets, best and worst,
We are ; there is no last nor first.”

Personal.

DR. ROSWELL PARK, professor of surgery at the Buffalo University Medical College, has been ill for some time, suffering from an infection wound received during an operation that he made about a year and a half ago. He recovered promptly from the initial attack and the infection has remained latent until about four weeks ago. Since that time, however, it has reappeared and on Thursday, May 27, 1897, after deliberate observation and consultation, Dr. John Parmenter, adjunct professor of clinical surgery, assisted by Dr. Chauncey P. Smith, removed a group of infected glands in Dr. Park's left arm. It is believed that this will terminate the manifestation of the malady and that Dr. Park will soon be well and at his surgical work as usual—a hope that his many numerous friends confidently cherish.

DR. E. C. W. O'BRIEN, surgeon of the Buffalo fire department, has been appointed consulting surgeon to the Riverside Hospital.

DR. JOSEPH M. MATHEWS, of Louisville, has been elected president of the medical society of the state of Kentucky. In this selection this famous medical society has done itself credit. The next meeting of this society will be held at Maysville in May, 1898, and it will be looked forward to with interest by the profession of the blue grass state.

DR. RAY H. JOHNSON, of Buffalo, has removed from 180 North Division street to the corner of North Division and Chestnut streets. Hours : 8-9 A. M., 1.30-2.30 and 7 P. M. Sundays : 1.30-2.30 P. M. Telephone, Seneca 212.

DR. F. PARK LEWIS, of Buffalo, has removed from 188 Franklin street to 454 Franklin street, where he will continue the practice of ophthalmology and otology. Hours : 9-1. Examinations by appointment.

DR. DANIEL LEWIS, of New York City, has been reëlected president of the State Board of Health. This is a just recognition of efficient services rendered and the JOURNAL is pleased to extend its congratulations to Dr. Lewis.

DR. L. A. WEIGEL, of Rochester, has removed from 43 Mortimer street to 209 East avenue, where he will continue the practice of orthopedic surgery. Hours : 10-1, except on Wednesday.

DR. ELMER STARR, of Buffalo, has removed from 412 Franklin street to 523 Delaware avenue, where he will continue the practice of ophthalmology. Hours : 9 A. M.—1 P. M.

DR. JAMES A. GIBSON, of Buffalo, has removed from 306 Niagara street to 492 Elmwood avenue. Hours : 8-9 A. M., 1.30-2.30 and 7 P. M. Telephone, Bryant 726.

DR. J. J. KANE, of Buffalo, has removed from 322 to 353 Elk street.

Obituary.

DR. JAMES MACKINTOSH HAYS, of Greensboro, N. C., died at his home in that city, May 15, 1897, aged about 40 years. He was one of the rising physicians in North Carolina, was a native of Greenville county, and his early demise will be lamented by the entire medical profession of the old north state.

Dr. Hays was a man of much brightness of intellect (*North Carolina Medical Journal*) and graduated from the Medical College of South Carolina, at Charleston, and became a member of the State Medical Society in 1885. He was for three years secretary of the society, and in 1894 was elected a member of the State Board of Medical Examiners, which office he filled until his death. He was an active member of the society, being but seldom absent from a meeting and presented to the society several papers of merit, to one of which The use of the microscope in the practice of medicine, was awarded the Pittman prize. Early in his professional career he reported a case of Cesarean section, performed after the death of the mother, a living child being removed.

For some years Dr. Hays practised at Oxford, his native town. He afterward practised a short time in Washington, D. C., where he was in control of Dr. Hammond's sanitarium. Later he took a special course in diseases of the eye, and after removing to Greensboro, devoted much of his time to this branch of medicine.

Dr. Hays was vice-president of the National Confederation of State Medical Examining and Licensing Boards in 1896 and a member of the executive council in 1897. He will be greatly missed in the councils of the Confederation.

DR. GARDNER CARPENTER CLARKE, who died March 22, 1897, was the first president of the Niagara Falls Academy of Medicine. At the regular monthly meeting of the Academy, held April 5, 1897, the following memorial was adopted and spread upon the minutes.

WHEREAS: In view of the great loss that we have sustained through the death of our honorary president, Gardner C. Clarke, M. D., and the still greater affliction sustained by those nearest and dearest to him, be it

Resolved, That we esteem it a privilege to extend our sincere sympathy to his family in their affliction, and further, that in mourning his death we feel that we regret the loss of one who was worthy of all the love and confidence that he commanded while in our midst, both on account of his skill as a physician and his nobility as a man; therefore be it

Resolved, That these resolutions form a part of the minutes of this meeting and that they be printed in the daily papers and that engrossed copies be sent to his family.

C. G. STIVERS, M. D.

FRED R. MCBRIEN, M. D., *Committee*.

DR. TRAILL GREEN died at Easton, Pa., April 29, 1897, aged 83 years. He was born at Easton, was graduated from the medical department of the University of Pennsylvania in 1835, and has practised medicine in his native city from that time until his retirement some years ago. In 1837 he was made professor of chemistry at Lafayette College, and in 1841 was called to the chair of natural sciences in Marshall College, Mercersburg. In 1866, Washington and Jefferson College conferred upon him the degree of LL. D. He built the astronomical observatory and presented it to Lafayette College and he also organised the Pardee scientific department at Lafayette. Dr. Green was, for nearly half a century, a member of the American Association for the Advancement of

Science. He was a member of many scientific societies, was the first president of the American Academy of Medicine, and an honorary Fellow of the American Association of Obstetricians and Gynecologists.

Society Meetings.

THE Buffalo Academy of Medicine held meetings during the month of May as follows :

Section on Surgery.—Tuesday evening, May 4th, program : The diagnosis of tumors, by Dr. Chas. E. Congdon ; A study of absorption of ligatures, with microscopic demonstration, by Dr. L. A. Hendee ; Sudden loss of sight, by Dr. J. C. Clemesha. Exhibition of cases and specimens : Dr. H. E. Hayd, A case of appendicitis, with specimens ; Dr. Grover W. Wende, A case of mycosis fungoides ; Dr. E. A. Smith, Cases and specimens ; Dr. C. P. Smith, A case.

Section on Medicine.—Tuesday evening, May 11th, program : Pancreatic disease and fat necrosis, by Dr. H. U. Williams.

Section on Pathology.—Tuesday evening, May 18th, program : Brain of a suicide, with fissural peculiarities, by Prof. Burt Green Wilder, of Cornell University. Exhibition of specimens : Mycosis fungoides, by Dr. Grover W. Wende ; Gallstone, and the like, by Dr. A. L. Benedict.

Section on Obstetrics and Gynecology.—Tuesday evening, May 25th, program : Infantile dyspepsia, its prophylaxis, results and treatment, by Dr. A. L. Benedict ; Acetanilid poisoning in a newly born child, absorption from umbilical wound, by Dr. Irving M. Snow.

THE Medical Society of the County of Cattaraugus held its annual meeting at Salamanca, on Tuesday, May 11, 1897. Officers for the ensuing year were elected as follows : President, Dr. M. C. Hawley, of Randolph ; vice-president, Dr. A. W. Smallman, of Ellicottville ; secretary and treasurer, Dr. T. B. Laughlen, of Olean ; committee on program, Drs. Smallman, Laughlen and Beals ; censors, Drs. Bedient, of Little Valley ; Lattin, of Cattaraugus and Beals, of Salamanca. An address upon Valvular diseases of the heart, was given by Dr. John H. Pryor, of Buffalo, and a paper on Complications of valvular heart diseases was read by Dr. A. D. Lake,

of Gowanda. The next meeting of the society will be held in August.

THE French Association of Urologists is the name of a new society that has been recently organised at Paris, with the object of studying the histology and pathology of the urinary passages. The purpose of this association is to reunite and group those investigators whose works have especially contributed to the progress of this branch of medical science.

Foreign corresponding members will be elected on a vote of two-thirds of the home membership, and are exempt from the payment of the initiation fee and annual dues. Applications should be made to secretary-general, M. Desnos, 31 rue de Rome, Paris.

THE American Gastro-enterological Association will hold its first meeting at Philadelphia, Thursday, June 3, 1897, at the College of Physicians, n. e. cor. 13th and Locust streets. This is the latest attempt at subdividing the various organs of the body into separate fields for occupation by national special societies. A comprehensive program has been issued and an interesting meeting is predicted.

THE Medical Society of the County of Erie will hold its regular semi-annual meeting on Tuesday, June 8, 1897, at 10 o'clock A. M., in the rooms of the Buffalo Academy of Medicine. The program is preparing by the secretary, Dr. F. C. Gram.

College and Hospital Notes.

THE New York University council has finally decided the delicate question of arranging the faculty in the consolidated medical schools. The diplomacy that served to accomplish this feat to the satisfaction of all interested deserves to be recorded. It was unanimously agreed (*Boston Medical and Surgical Journal*) that the university corporation should elect the new faculty, and in order that there might be as little embarrassment as possible the members of the old ones all tendered their resignations. The corporation then furnished blanks to the professors and asked them to nominate men whom they considered most competent to fill the

different chairs, and it is stated that the corporation selected nine-tenths of those who were thus recommended. While there were twenty professorships in the former medical department of the university, there are now forty-one in the new consolidated school. The following is a list of those elected :

Professors.—Medical ethics, Dr. John P. Munn ; pathology, Dr. J. G. Adami ; public medicine and infectious diseases, Dr. Hermann M. Biggs (Belv.) ; applied anatomy and clinical surgery, Dr. Joseph D. Bryant (Belv.) ; physiology, Dr. Austin Flint (Belv.) ; practical anatomy, Dr. Irving S. Haynes (Univ.) ; materia medica and therapeutics, Dr. Henry P. Loomis (Univ.) ; obstetrics, Dr. Wm. T. Lusk (Belv.) ; Gynecology, Dr. Wm. M. Polk (Univ.) ; theory and practice of medicine, Drs. A. Alexander Smith (Belv.) and W. Gilman Thompson (Univ.) ; surgery, Dr. Lewis A. Stimson (Univ.) ; chemistry, physics and toxicology, Dr. Rudolph A. Witthaus (Univ.) ; anatomy, Dr. George Woolsey (Univ.).

Emeritus Professors.—Chemistry, Dr. R. Ogden Doremus (Belv.) ; medical jurisprudence and psychological medicine, Dr. Alexander E. Macdonald (Univ.) ; otology, Dr. Chas. I. Pardee (Univ.) ; orthopedic surgery, Dr. Louis A. Sayre (Belv.) ; materia medica and therapeutics, Dr. William H. Thomson (Univ.) ; dermatology, Dr. Henry G. Piffard.

Adjunct and Assistant Professors.—Obstetrics, Dr. J. Clifton Edgar (Univ.) ; practical anatomy, Dr. John F. Erdmann (Belv.) ; surgery, Dr. Frederick W. Gwyer (Univ.) ; medicine, Dr. Egbert LeFevre (Univ.) ; chemistry, Dr. J. A. Mandel (Belv.) ; anatomy, Dr. George D. Stewart (Belv.) ; chemistry and physics, Dr. Ivan Sickels (Univ.).

Clinical and Special Professors.—Otology, Drs. Edward B. Dench (Belv.) and Gorham Bacon ; diseases of the nose and throat, Drs. F. H. Bosworth (Belv.) and Cornelius G. Coakley (Univ.) ; ophthalmology, Drs. Charles S. Bull (Univ.) and Henry D. Noyes (Belv.) ; surgery, Dr. Frederic S. Dennis (Belv.) ; diseases of the nervous system, Dr. Edward D. Fisher (Univ.) ; genito-urinary diseases, Drs. Samuel Alexander (Belv.) and P. A. Morrow (Univ.) ; midwifery, Dr. Austin Flint, Jr. (Belv.) ; dermatology, Dr. John A. Fordyce (Belv.) ; mental diseases, Dr. Carlos F. MacDonald (Belv.) ; diseases of children, Drs. Wm. P. Northrup (Belv.) and Joseph E. Winters (Univ.) ; medicine, Drs. Beverley Robinson (Belv.) and Charles E. Quimby ; lecturer on orthopedic surgery, Dr. Reginald H. Sayre.

In the above list there appear the names of but two who did not formerly occupy positions in either Bellevue or the University Medical School—namely, Drs. John P. Munn and J. G. Adami. Dr. Munn is the only member of the faculty who is also a member of the council of the university. Dr. Adami is now professor of pathology in McGill University, Montreal, and has an international reputation. He is a graduate of Cambridge University, where he formerly held an assistant professorship.

The university council held a special meeting Wednesday, May 26th, with eighteen members present, and completed the roll of professors of the consolidated University-Bellevue Hospital College by the election to full professorships in the governing faculty of Dr. E. G. Janeway, in medicine, and Dr. Frederic S. Dennis, in surgery. The roll of the governing faculty now numbers twenty-one members, while the clinical, emeritus and assistant professors are twenty-five.

THE Riverside hospital, at 306 Lafayette avenue, Buffalo, has recently enlarged its capacity by taking the adjoining house, which increases its facilities for accommodating patients nearly 50 per cent.

Dr. Carro Julia Cummings (Buffalo University, '97,) has been appointed assistant house physician. Miss Falkner, as matron, takes charge of the hospital housekeeping, and Mrs. Margaret Johnston has been appointed superintendent of nurses. The JOURNAL extends its congratulations to the hospital on its progress.

CHAUTAUQUA COUNTY NOTES.

DRS. WILLIAM M. BEMUS and Laban Hazeltine, of Jamestown, and Dr. S. P. McCray, of Clymer, constitute the new board of pension examining surgeons for Chautauqua county, with headquarters at Jamestown.

DR. G. E. ELLIS, of Brocton, has been compelled to take a rest from his professional work on account of an attack of glycosuria. He has improved during the past month and expects soon to be able to resume his practice.

DR. W. A. PUTNAM, of Westfield, has moved out to his farm, near Silver Creek, to recuperate his health following an attack of pneumonia, from which he suffered in November, 1896.

THE County Medical Society is arranging for an evening session at its annual meeting in July, at which time a paper will be read on the subject and exhibition of the X-rays given.

DR. S. C. GREEN, class of '95, University of Buffalo, has located at Panama, N. Y. The profession in Chautauqua county gladly welcomes him into his chosen field of labor.

Book Reviews.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D., New York City. In twenty volumes. Volume IX. Diseases of the Digestive Organs. New York: William Wood & Company. 1897.

Whoever may take even a cursory glance at this volume of the important series called the Twentieth Century Practice of Medicine will be impressed with its value, while a more complete examination will lead to the conviction that it is one of the best, if not the very best, in the group thus far published. The authors are distributed over a wide range of territory, compassing almost three-quarters of the globe, reaching from Chicago to Naples and Berlin, thence to Johannesburg in the South African Republic.

Beginning with local diseases of the mouth, we find it to be an interesting chapter, written jointly by Mikulicz and Kümmel, of Breslau. These authors lay special stress on malignant diseases of the soft parts and are especially rich in their pathology. Diseases of the intestines, by Ewald, of Berlin, takes the reader through an absorbing field that is discoursed upon by a most competent author. We have lately expressed our opinion of a treatise on the stomach from the same source. The next section, written jointly by Gibney and Walker, of New York, is devoted to the consideration of hernia and contains some new points that are the subject of illustration. One is ventral hernia following incision after appendicitis; another is congenital lumbar hernia.

Reaching the central portion of the book, we find a section devoted to diseases of the spleen, prepared by Alfred Stengel, of Philadelphia, the distinguished young pathologist, who lately visited Buffalo and read a paper before the Alumni Association of Buffalo University Medical College. Stengel has intelligently grouped all the knowledge we possess in relation to this obscure organ. In the next section Semmola and Gioffredi, of Naples, consider diseases of the liver and, as might be suspected, they appropriate about one-third of the volume to the subject. It is a fruitful field, since almost everybody has a liver and only a few

think it healthy. Doctors, too, encourage the belief by charging every obscure or unrecognised symptom to this old-fashioned organ that is generally more sinned against than sinning. Nevertheless, these two well-known writers have succeeded in telling us some new facts in regard to it and have presented them in very readable fashion.

A section in which diseases of the gall-bladder are dealt with is most satisfactorily and intelligently handled by John B. Murphy, of Chicago. This distinguished surgeon has had a large experience in this field, and since it is essentially a surgical subject his selection to write upon it was most fortunate. Finally, the subject of movable kidney is presented by Franks, of Johannesburg, South African Republic, which is an interesting essay.

Volume X. was published some time ago and was reviewed in May, 1897, page 788, so that now one-half the series is completed.

SEVENTEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF NEW YORK. With fourteen maps of sewer systems and sewage disposal works (in separate volume). Transmitted to the legislature, February 17, 1896. Albany: Wynkoop Hallenbeck Crawford Company, State Printers. 1896.

These reports are among the most interesting official documents issued from the capital at Albany. They deal with questions that have an important bearing upon the health and prosperity of the people and should be studied by sanitarians and public health officers. The board is now presided over by one of the most capable officers it has ever had, and the work done by the board, if he can have his way, will always be a credit to the Empire state. The tuberculosis committee has continued its work and its report indicates some progress in investigating this important field. The efficacy of tuberculin as a diagnostic agent is reaffirmed as the result of further experience by the committee. It says: "By the use of this agent some animals, advanced in the disease, fail to show any reaction, and in other cases animals not as extensively affected will show the highest reaction. In the examinations thus far made not a single error has occurred, as proven by the autopsies."

The protection of water supplies of the smaller cities in the interior is another important field in which this board is doing excellent work.

TRANSACTIONS OF THE EIGHTEENTH ANNUAL MEETING OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION, held in the City of Pittsburg, Pa., May 14, 15 and 16, 1896. Henry L. Swain, M. D., Secretary. New York: D. Appleton & Co. 1897.

This annual volume represents the work of one of the oldest and best of the American special societies. The president, Dr. W. H. Daly, in his annual address refrained from wearisome dis-

course on difficult questions of science, but instead gave some interesting personal reminiscences and talked to the Fellows as though they were members of one family. Among other things he alluded to the fact that when he began to practise laryngology, some twenty years ago, there was scarcely a laryngoscope in use west of the Alleghany mountains. Though he is a student and practiser of laryngology he has yet never ceased to be somewhat of a general practitioner, for he believes that one cannot be a good specialist in diseases of the nose, ear and throat without large experience and knowledge of general medicine. The good sense of this statement will be apparent to every trained physician. When a man starts fresh from college, or even after one or two years general practice, he is a specialist for the general public to avoid.

The volume is replete with interesting papers and able discussions. It is a book that must naturally be found on the table of every laryngologist and those who practise general medicine will do well to obtain it.

LECTURES ON APPENDICITIS AND NOTES ON OTHER SUBJECTS. By ROBERT T. MORRIS, A. M., M. D., Fellow of the New York Academy of Medicine, American Association of Obstetricians and Gynecologists, American Medical Association; Member of the New York State and County Medical Societies, Society of Alumni of Bellevue Hospital, Linnean Society of Natural History, etc. Second edition, revised and enlarged. With illustrations by Henry Macdonald, M. D. New York: G. P. Putnam's Sons. London: The Knickerbocker Press. 1897.

In our review of the first edition of this monograph (Volume XXXV. of the JOURNAL, page 443, new series,) we expressed a high appreciation of the work of this distinguished author on the lines herein laid down. That the profession in general has shown a like appreciation of the book is indicated by the fact that a second edition is demanded in a little more than a year. It is refreshing to read Morris's rules for surgical cleanliness, or rather his ideas governing that important preliminary to all surgical procedures. What he says on the subject is so simple, so precise and yet withal so imperative, that it is difficult to understand how even the novice could fail to comprehend it or to recognise its absolute necessity.

With regard to the subject proper, appendicitis, there is nothing further to add on this occasion. Morris deals with it in a masterful manner. His monograph is one that merits study and it will be quoted as a part of the literature of the subject in years to come; in other words, the principles and practice laid down are such as will stand the test of time. Measured by his results, Morris must be given place in the front rank as an abdominal surgeon.

THE DISEASES OF THE STOMACH. By DR. C. A. EWALD, Extraordinary Professor of Medicine at the University of Berlin; Director of the Augusta Hospital, etc. Translated and edited, with numerous additions, from the third German edition, by MORRIS MANGES, A. M., M. D., Assistant Visiting Physician to Mount Sinai Hospital; Lecturer on General medicine at the New York Polyclinic, etc. Second revised edition. New York: D. Appleton & Co. 1897.

The first American edition of this work was noticed in the JOURNAL, Volume XXXII. New Series, page 314, December, 1892, in which we called attention to a number of its important features. Since that time considerable progress has been made in the knowledge of diseases of the stomach and several other important works have been issued. This has rendered necessary a new American edition, of this one which is based upon the third German edition. This is by the same translator as the former one and he has followed the author's text with few exceptions, but has incorporated much new material which appears either in foot notes or inclosed in brackets. Ewald is recognised as an accurate observer and he is quoted in the literature of diseases of the stomach in almost every tongue. He is especially strong in his pathology, particularly in malignant diseases and ulcer of the stomach. While in this direction there has been of late much increase of pathological knowledge there has not been, it must be confessed with some degree of regret, a corresponding progress in our therapeutic resources. However, whatever has been done that is of value will be found correctly set forth in Ewald's treatise. It has become a recognised text-book, as was predicted when it first appeared, and must be consulted by those clinicians and teachers who desire to keep pace with the most substantial literature.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. For the use of Students and Practitioners. By J. NEVINS HYDE, A. M., M. D., Professor of Dermatology and Venereal Diseases in Rush Medical College, Chicago. and FRANK H. MONTGOMERY, M. D., Lecturer on Dermatology and Venereal Diseases, Rush Medical College, Chicago. New (fourth) edition. In one octavo volume of 815 pages, with 110 engravings and twelve full-page plates, four of which are colored. Philadelphia and New York: Lea Brothers & Co., Publishers. 1897.

The demand for another edition of Dr. Hyde's work on skin diseases within so short a period is a practical endorsement and evidence of value accorded to but few books. So much has been said in detail concerning it upon previous occasions that it remains only to refer to the fact that the book has been gone over from beginning to end, eliminating here and adding there, so that as the work stands it has all that is recent and that has been found practical and established. Coincidentally it has been judiciously pruned of unnecessary or obsolete matter.

It is a treatise of exceptional merit, being characterised by

conscientious care and scientific accuracy, and may well serve as a model for other writers on similar subjects. The author has, in his best manner, correlated the various treatments for skin affections with the reason and indications peculiar to each. It compares favorably with any work published and is a credit to the American profession. From the standpoint of the publisher is eminently satisfactory; especially creditable are the illustrations, and we would cordially commend it to our readers. E. W.

BOOKS RECEIVED.

Surgical Hints for the Surgeon and General Practitioner. By Howard Lilienthal, M. D., Assistant Attending Surgeon to Mt. Sinai Hospital, New York City. Price, 25 cents. New York: International Journal of Surgery Company. 1897.

A Handbook of Medical Climatology, Embodying its Principles and Therapeutic Application, with Scientific Data of the Chief Health Resorts of the World. By S. Edwin Solly, M. D., M. R. C. S., late President of the American Climatological Association. In one 8vo volume of 470 pages, with engravings and colored plates. Cloth, \$4. Philadelphia and New York: Lea Brothers & Co., Publishers. 1897.

Manual of Static Electricity in X-Ray and Therapeutic Uses. By S. H. Monell, M. D., Founder and Chief Instructor of the Brooklyn Post-Graduate School of Clinical Electro-Therapeutics and Röntgen Photography: Fellow of the New York Academy of Medicine. Octavo, 614 pages, cloth, gilt. Illustrated. Price, \$5 net: postage, 35 cents. New York: William Beverley Harison, Publisher, 3 and 5 W. 18th street. 1897.

Twenty-second Annual Report of the State Board of Health of the State of Michigan for the Fiscal Year ending June 30, 1894. Henry B. Baker, M. D., Secretary. Lansing: Robert Smith & Co., State Printers and Binders. 1896.

Syngomyelia. An Essay to which was Awarded the Alvarenga Prize of the College of Physicians of Philadelphia, for the Year 1895. By Guy Hinsdale, A. M., M. D., Fellow of the College of Physicians of Philadelphia, etc. Philadelphia: P. Blakiston Son & Co. 1897.

Transactions of the American Microscopical Society. Nineteenth Annual Meeting, held at Carnegie Library, Pittsburg, Pa., August 18, 19 and 20, 1896. William C. Krauss, M. D., Secretary. Buffalo: A. T. Brown Printing House. 1897.

Transactions of the Medical Society of the State of North Carolina. Forty-third Annual Meeting, held at Winston-Salem, N. C., May 12, 13 and 14, 1896. Wilmington: LeGwin Bros., Printers and Binders. 1896.

The Liver of Dyspeptics and Particularly the Cirrhosis Produced by Auto-Intoxication of Gastro-Intestinal Origin. By Dr. Emile Boix, of Paris. Authorised translation from the latest French edition by Paul Richard Brown, M. D., Major and Surgeon U. S. Army. New York: G. P. Putnam's Sons. 1897.

Transactions of the Medical Association of Central New York. Twenty-ninth Annual Meeting, held at Rochester, N. Y., October 20, 1896. William C. Krauss, M. D., Editor. BUFFALO MEDICAL JOURNAL Print. 1897.

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Original Communications.

RECIPROCITY IN MEDICAL LICENSURE; A PLEA FOR INTERSTATE INDORSEMENT.

Presidential address before the National Confederation of State Medical Examining and Licensing Boards, at its seventh annual meeting, held at Philadelphia, Pa., May 31, 1897.

By WILLIAM WARREN POTTER, M. D., Buffalo, N. Y.

Examiner in Obstetrics, New York State Medical Examining and Licensing Board.

FOR the second time it becomes my duty to assume the functions of presiding officer over the deliberations of this confederation, and I beg, at the outset, to offer you my best thanks for this renewed mark of your favor.

IN MEMORIAM—DR. PERRY H. MILLARD.

Since our meeting at Atlanta last year the confederation has suffered beyond measure in the death of one of its most able and useful members, Dr. Perry H. Millard, of St. Paul. Since the death of Dr. Rauch, I know of no one whose counsel has been so necessary to our welfare, and of none whose devotion to the interests of the organisation has been greater. It was my sad privilege to visit him at Johns Hopkins Hospital only a month before his end and then, though feeble in body, his clear and active mind was busy with the affairs of this confederation, and especially with the report of the committee on minimum standards, which he, as chairman, hoped to make at this meeting. But his final summons came on February 2, 1897, when this accomplished physician and useful citizen passed to his immortality. "His spirit was twenty, his years were fifty, but, alas! his body was eighty. Farewell."

INTRODUCTION.

At our meeting last year it seemed proper to explain in considerable detail the objects of this organisation in order that there

might be no misunderstanding as to its purpose. For some time previously the medical schools, or at least some of them, had looked with oblique eyes upon our movements, fearing, possibly, that we might be scheming to interfere with their prerogatives in the educational field. At first, too, some of them were inclined to criticise the provision made in most of the states that teachers in medical colleges shall not be eligible to appointment on examining boards. The wisdom of this proviso, however, must be apparent to every thinking man. No one disputes the fact that there must be absolute impartiality in the examinations, but how could this prevail if college teachers were made members? Obviously, one college would be jealous of another, and there would be no end of criticism and contention over the work as well as the representation on the boards; especially so in those states in which there are several schools.

It was further alleged in some quarters that none but teachers were competent to prepare questions or mark answers. The absurdity of this suggestion has been abundantly proven. As a matter of fact the test of the state examination is different from that applied to undergraduates. The state examiners must, by a few well-chosen and comprehensive questions in each branch, determine a man's general fitness to practise the science and art of medicine. They must so frame the few questions they are permitted to ask, and which there is but scant time to answer, so as best to develop that fact in a general way. On the other hand, teachers having been in close relationship with their pupils for three or four years need examine only on the subjects upon which they have given instruction: they often ask categorical questions, or those admitting of incomplete answers—a defect that is expected to be, and usually is, supplied in answer to the next question in further elaboration of the subject, which is easily understood to follow. This method is quite right and proper in a teacher's relation to the pupil or the candidate for the doctorate degree, but not admissible from our standpoint. Here each question must be clear, comprehensive and complete in itself, not susceptible of being answered by "yes" or "no." Ours is, or should be, essentially a post-graduate examination.

In order to test this matter, I have asked teachers, in a few instances, to submit groups of questions; but I have found them, speaking generally, not adapted to the state test, although quite satisfactory to ask at pass examinations or of candidates for the

doctorate degree. A state examiner will soon acquire the skill of propounding questions in a fashion best adapted to his work, especially those that will best test the quality of instruction the candidate has received. Once this important and tactful knowledge is obtained, his services become of incalculable benefit to the state and he should be retained as long as he will consent to serve.

Another fear of the schools was that the high standards, directly and indirectly growing out of state control, would empty their benches, or that there would be such a diminution of pupils as to materially deplete their incomes. Quite the contrary has been the fact. Bellevue, at New York, graduated a larger class this year than in some years past and its lecture rooms are reported to have been full. The College of Physicians and Surgeons (medical department of Columbia University) has found it difficult to provide room for its overflowing classes. In the city of Philadelphia, which, since an early day, has been a center of medical education, the schools are full even to embarrassment. In Buffalo, the University Medical College never had so many matriculates nor so large a graduating class as this year; and so it is wherever high standards have been adopted. The explanation is not difficult: students want the best; it costs no more in the end and serves them with much greater satisfaction in their early struggles for recognition and professional favor, and enables them to maintain a higher position in later years.

It was made apparent at our meeting last year that the examiners compare favorably in education and personnel with the professors with whom we were assembled in joint session; and I hardly think it likely that we shall again hear the challenge, given probably more to cover a retreat than to mask an advance, "Who shall examine the examiners?" The answer, were one necessary, is not difficult to find; for the self-same authority that examines the examiners will, no doubt, find it an agreeable duty likewise to examine the professors.

No! there is no disagreement between the college faculties and the state examining boards, for it has been clearly demonstrated that they are friends. Their interests are common and their objects one. They must not be drawn into antagonism by the indiscreet utterances of a few misguided though well-meaning persons. Each is working in separate yet contiguous fields, and all are striving for the same purpose—namely, to obtain the best pos-

sible equipment for every man and woman sent out over this broad land to practise the profession of medicine.

There is, then, less occasion for extended general remark now than heretofore, as I have already intimated ; hence I shall address myself to the discussion of but a single topic, one, however, of paramount importance.

INTERSTATE EXCHANGE OF LICENSES—THE PROBLEM.

There are at this moment two questions pertaining to state control of medical practice that seem to tower above all others in the minds of many physicians, which demand our most careful attention and challenge our deliberate judgment. The two are, however, so inseparable that in reality they may be considered as integral parts of one subject and discussed together. I refer to (*a*) minimum standards of requirements to enter upon the study of, acquire a diploma in, and obtain a state license for the practice of medicine ; and (*b*) to the interstate indorsement or recognition of licenses so that, under prescribed rules, a licensee of one state may be permitted to practise in any other state in which he may seek a temporary or permanent residence.

It goes without saying that an exchange of these official courtesies between the states "is a consummation most devoutly to be wished" by every friend of state control in medicine. It is one of the principal objects that this confederation is laboring to accomplish. It is at the same time one of the most difficult problems thrust upon us for solution. No one can deny the fact that it is pleasant to contemplate a time—I trust in the near future—when we may have a national registration bureau where every legally qualified reputable physician may be recorded, and when all physicians whose names appear on this register and whose licenses are properly indorsed by the registrar, may pass from one state to another in the practice of their profession and in the enjoyment of all the privileges thereto appertaining.

But how is this to be established with celerity and with justice to all concerned ? The idealogues who were chiefly interested in the agitation of the question of reciprocity of licensure, assert that unless an interstate exchange is arranged, and that speedily, the whole system of state control in medicine will go to the wall. Whether this is given out in the nature of a threat or a prediction I know not, but there are indications that lead me to suspect the former. These men I believe are, for the most part, specialists who-

spend the vacation months at summer resorts, watering-places, or on comfortable farms that their plethoric purses have secured in states more or less remote from their homes. They expect to make a snug sum from consultations and office patients during the vacation season, but do not relish the idea of being compelled to "undergo the nuisance of examinations," as they characterise it, in the states they have chosen for their holiday practice.

They are frequently men of influence who seek to prejudice their medical friends against the system, by pointing out what they are pleased to term the injustice of applying the state laws in their cases, and then proceed to air their grievances in the columns of the medical journals as a court of last resort. While I have no doubt that the denial of reciprocity now and then works hardship to deserving men who perforce must change their residences, but can ill afford to spare the time and money to take a new examination, I yet fail to see wherein the class of men first above referred to and who prate the loudest about it, are deserving of special sympathy. They can well afford to submit to an examination in the states were they pass a profitable and easy summer; moreover, I am unable to discover any injustice in compelling them to comply with existing laws. Shall a state require of its own citizens a compliance with its practice laws and at the same time grant to the well-to-do summer specialist exemption from their operation? As the state laws, for the most part, forbid discrimination against the inhabitants of each, there is both a moral and a legal bar to such exemptions. Let us, however, calmly examine the question with a view to arrive, if possible, at an intelligent and just solution of the problem.

EQUALITY OF STANDARDS A BASIS FOR RECIPROCITY—THE OBSTACLES.

The only equitable basis upon which reciprocity can be established that appears both feasible and practicable, is that of equality of standards for admission to the study and practice of medicine. This implies an equalisation of the preliminary requirements of medical students and a uniformity of applying the tests; a uniform period of collegiate training, including uniformity of methods of teaching; and, finally, an absolute similarity in the methods of conducting state examinations and granting licenses. A minimum standard of preliminary qualifications is important to agree upon. This ought to be done in a uniform manner by all the states for the sake of the good name of our profession, even if there were no

other cogent reasons demanding it. American medicine should not be disgraced any longer by illiterate physicians ; hence, illiterate students ought not to be admitted to our medical schools. If we cannot agree upon any other question we ought to demand this much as a united profession.

What, then, shall be the minimum limit of education below which a student of medicine shall not be accepted ? No more important question awaits answer, but it is one on which, I am sorry to say, there is much diversity of opinion. If a man's mind has not already been disciplined to the extent of acquiring a good English education before he takes up the study of medicine, it presents a sorry foundation upon which to engraft a knowledge of such a multiform science and art. It is far more important, in my view, to agree upon a reasonably conservative standard of minimum requirements than it is to insist upon extending the terms of medical teaching to four years ; since it is better to teach three years of medicine to a well-disciplined mind than to demand four years' medical training of an illiterate student. It is to be hoped that this cardinal principle can be definitely settled to the satisfaction of all the states at an early day.

But let us pass to the next topic—namely, uniform periods of collegiate training. Here, fortunately, there is less diversity of opinion, thanks to the good work of the Association of American Medical Colleges. Under the stimulating influence of the American Academy of Medicine, well seconded as I believe by this confederation, we find a public sentiment fast settling to the conclusion that four years is quite short time enough in which to acquire the proper training and knowledge to fit one for the doctorate degree. It must be remembered that it is required nowadays of the undergraduate to pursue courses in anatomic, physiologic, chemic, biologic, pathologic and bacteriologic laboratories, and to undergo training in medical, surgical and obstetric clinics ; add to this the necessary didactic and recitative courses besides training in special techniques,—microscopy, ophthalmoscopy, laryngoscopy, and the like,—with all these, besides much other information that must be acquired, and who shall say that four years is too long a time to devote to college work ? It would be interesting in this relation to trace the progress that has been made in the last quarter of a century in the various departments of medicine, but they are as familiar to you as to me. You know how the complexity of the present age with its rapid transit and instantaneous methods of

communication has correspondingly increased assaults by the enemies of health that, too, are multiplying with such marvelous rapidity. To deal successfully with this complexity requires a mind more deeply and broadly cultivated ; preparations for receiving and utilising medical instruction must be increased and lengthened ; as our civilisation develops our immunity from disease lessens, hence our vigilance and efficiency must be greater, our period of preparation longer, and our training increased in length, depth and breadth. It is, therefore, with pleasure that we observe and heartily approve the good work of the association of American medical colleges that is arranging the curricula in such a manner as best will be adapted to the environment of the present day. In this relation it would also appear essential that methods of teaching should be reduced to a degree of uniformity that heretofore has not been attained. With a universal establishment of four years' courses in American medical colleges, it will become appropriate for them to grade their curricula to as near a common level as may be consistent with surrounding conditions. Methods of teaching in all the laboratory departments could easily be conducted on a scale of similarity that would make them practically uniform in all the colleges. Then it would matter little where the student received his doctorate degree, as all colleges would be on or near at par.

The third condition to be standardised is one that immediately concerns this confederation and it becomes us to deal with it in a most thoroughgoing manner. The first step toward equalising methods of applying the separate examination for license in the several states, it seems to me, is to bring the examiners together on the subject. If they can be made to agree upon questions concerning their all-important function, then we have gone a long way toward establishing uniform methods. If, however, they differ in opinion as to the application of the principle in the several states, the prospect for speedy adjustment presents a more discouraging view. The first point that offers itself is so plain that I am sure no one will attempt to dispute it. The foundation principle of a separate examination for license to practise is that it shall be applied to all with absolute impartiality ; there must be no exceptions to the rule, no exemptions.¹ While it is true that a law on

1. If some who demand exemption would spend as much time in preparing for the state examination as they do in trying to avoid it, they would command more respect, and be better off.

this subject cannot be made retroactive and that all legal practitioners at the date of its passage must continue to be so recognised, yet all others must be examined ; and so the work must continue from year to year. Another inflexible rule that ought to prevail is that a diploma from a registered school should be demanded as a passport to the state examination. The logical conclusion is that a state examination is supplemental and consecutive to that of the schools, and that it should be refused in all cases where applicants are not holders of diplomas legally obtained from registered and recognised colleges. If this rule were scrupulously enforced it would deprive medical college faculties of grounds for any further opposition to state control. If, on the other hand, any of the state examining boards are permitted to examine undergraduates for license, it enables them to set up standards of their own—a function antagonistic to the underlying principle of state control and, I fear, subversive to the best interests of reform in medical education. When the duties of medical examiners are reduced to the mere question of determining the qualifications of such individuals as legally constituted schools shall turn over to them with M. D. degrees, they will have served the whole purpose for which they have been created. It is understood, of course, that there must be a uniform system of recognising and registering the medical schools in the several states.

With the foregoing principle once settled the minor details of standardising state medical examinations for license could be more easily arranged. A uniform system of propounding and marking questions becomes desirable. For instance, if it could be agreed that ten questions in each department or topic should be asked and that each answer should have a possible value of ten points; and, further, that the total possibilities of the examination should be fixed at 100 points, maximum, and 75 points, minimum, in each topic, we could easily approach uniformity in this part of our work. The only remaining important question would be as to the valuation of the answers. This necessarily will always vary a little in degree, since the personal equation of the examiner enters somewhat largely into its outcome. It is a well-known fact that some examiners are inclined to a high, others to a medium, and still others to a low valuation ; but with experience and an interchange of opinion on the subject this factor would soon be reduced to an exiguity that would render it comparatively unimportant.

LEGISLATIVE ENACTMENTS—THE SOLUTION.

These, then, are the essential steps towards reciprocity ; these are the obstacles to be overcome before it can be accomplished. The remedies lie in legislative enactments and these, speaking generally, are of slow development. Nevertheless, with a healthy public opinion once aroused on the subject, legislative bodies will soon take heed and adopt adequate measures to overcome defects. The newer states are likely to fall into the front line sooner than the older ones that already have imperfect laws. Public opinion moves faster, and I had almost said in a sounder fashion, as we travel toward the Occident. This, in some respects, is no doubt true. Montana, for instance, stands at the forefront in all of its requirements for state license. Minnesota, too, has been a pioneer in the movement for advanced standards and has one of the best laws. Moreover, we may expect those states east or west, north or south, that as yet have no laws relating to medical practice, taking heed of the necessities arising under present conditions and profiting by the experience of those states that have preceded them in relation to state licensure, to enact laws that will meet all the conditions of the present day and which will satisfy the most idealogistic views.

At present, twenty-seven states demand separate examination for license to practise medicine. In fifteen of these a legally obtained and possessed diploma is the first condition imposed ; without it a candidate cannot be admitted to the examination. It only remains for this latter group, by statutory enactments, to bring their preliminary requirements to a common level and then for their several examining boards to agree upon uniformity of methods, when, lo ! the question of reciprocity is solved. A license granted by one of these states will then be valid in all others of this class, upon proving identity, character and the payment of whatever fee may be imposed. With reciprocity once accomplished between these states, the others, one by one, will soon afterward establish themselves on the reciprocity basis in self-defense, if for no other or better reason.

Those who most loudly and persistently demand interstate indorsement aim their criticisms at the examining boards, holding them responsible for all their woes, whereas, as a matter of fact, the examiners have nothing whatever to do with the question. They are simply agents of the states to administer the laws as they find them and cannot change the practice in regard to reciprocal

interchange of registration. The statutes in every instance with which I am familiar merely permit the acceptance and registration of licenses issued by other states, where the standards are at least equal in all respects to those of the state issuing the license. This means, if it has any significance whatever, that in all preliminary requirements, in collegiate training and in state examinations, one and all, there must be an equality and a uniformity of standards before licenses can be accepted for registration in a reciprocal manner.

The precise language of the New York statute on this subject is as follows :

Applicants examined and licensed by other state examining boards registered by the regents as maintaining standards not lower than those provided by this article may, without further examination, on payment of \$10 to the regents, and on submitting such evidence as they may require, receive from them an indorsement of their licenses or diplomas conferring all rights and privileges of a regent's license issued after examination.

In an amendment to the practice law passed March 21, 1896, this principle was reaffirmed in the following terms :

New York medical schools and New York medical students shall not be discriminated against by the registration of any medical school out of the state, whose minimum graduation standard is less than that fixed by statute for New York medical schools.

As many other states have enacted statutes fashioned after that of New York, containing this particular proviso, and as still other states hold to the same provision in effect, it is easy to understand how powerless the examiners are in the premises. These demands of the restless and migratory doctors must be taken to the state legislative halls and there made known, if relief is expected. Meanwhile, the members of this confederation may assist in bringing the problem to more speedy solution by acquainting their legislatures with the difficulties to be overcome and by urgently recommending the adoption of such amendments to existing laws as will meet and remove the present defects.

My object in discussing this subject in detail is to place the examiners right before the country in regard to it and to divert further criticism against the delay of reciprocity into the proper channel.

PROGRESS DURING THE YEAR.

During the past year attempts have been made in nine states and territories to establish medical examining boards, in four of which

efforts have been successful. Those that have joined the list with practice laws are : District of Columbia, Idaho, Indiana and New Hampshire. The laws of New Hampshire, District of Columbia and Idaho make a diploma from a registered school a requisite to enter the examination. In Indiana the law is modeled somewhat after that of Ohio, and is a substantial beginning in a state that has sadly needed protection from charlatans and medical pretenders. So, in the academic year just now about to close, there has been substantial gain in the direction of state control, even if some important states have fallen "just outside the breastworks." These no doubt will re-form their lines and come to the attack another year with full promise of success. If four states and territories are added to the list each year, in a very short time we shall be able to rejoice in a professional rehabilitation that will compel the admission of the American licentiate to the best medical standing wherever civilisation exists.

It seems important in view of the present condition of state control that the committee on minimum standards, appointed last year, shall be continued as a standing committee of this confederation, with enlarged powers that shall include also the question of reciprocity. Permit me to invite your attention to a brochure, entitled, "State requirements for the practice of medicine ; a guide to the qualifications and methods of procedure to enter upon the practice of medicine in the United States," compiled and published by Dr. Charles McIntire, of Easton, Pa. It constitutes the Bulletin of the American Academy of Medicine for February, 1897, and is by far the most complete publication on the subject yet issued. If secretaries of boards had paid more attention to requests for information the book would have been absolutely accurate up to the date of its issue ; as it is, it is surprising how much of value Dr. McIntire has been able to furnish. Every state examiner and especially every secretary should be supplied with this guide and it should be placed on file in all public libraries.

QUESTIONS OF PUBLIC HEALTH ARE INVOLVED—CONCLUSION.

To return for a moment and finally to the special subject-matter of this paper: I venture to promise, that in any event and under all circumstances the honest and earnest friends of reciprocity may be sure of the active and zealous coöperation of this confederation in

all reasonable efforts to establish it. In most of the states where state license is established the struggle to obtain even imperfect laws has been prolonged and the contest has been exasperating as well as fatiguing. Every possible influence has been brought to bear on legislatures to prevent even a conservative recognition of the principle. Nor is this all : after laws have been passed making a good start in the direction of this reform, the state medical societies, through whose influence, speaking generally, the measures have been adopted, have been kept constantly on the defensive at legislative hearings and otherwise, to prevent amendments to existing statutes that would weaken or tend to destroy their usefulness.

These proposed amendments generally have their origin in spite, malice, caprice, or vengeance, and should always be regarded with suspicion by legislative bodies. It will be a happy day for the friends of state license when legislatures can be persuaded to turn a deaf ear to all amendments that are proposed outside of state medical societies or state boards of medical examiners. They know the defects in statutes and can be trusted to formulate the remedies. This would save much time to members of legislative bodies and give security of feeling to the medical profession. If legislators, too, could be made to appreciate the fact that public health interests are involved in the question of state license ; that every attempt to weaken the principle is a blow at public sanitation ; and that higher standards of medical education mean better health for the people, then, perhaps, it would be easier to obtain and maintain the necessary laws to protect the commonwealth against that kind of ignorance, superstition, or super-refinement that always lurks in the environment of quackery.

Traveling and advertising quacks, christian science and faith healers, clairvoyant and spiritualistic mountebanks—these and every other kind of pretender that panders to the ignorance and superstition of the people, leeching their money and sapping their vital force, ought to be no longer tolerated by enlightened communities ; and if legislatures would lend a willing hand these villainous enemies of public and individual health and prosperity might soon be disposed of in a fashion becoming an intelligent and progressive age.

SOME ASPECTS OF ENTEROPTOSIS.¹

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IN THE matter of the mobility of the viscera the resources of nature have been tried. In some parts considerable motion is demanded ; at the same time relative fixation is necessary. It is interesting to examine the great cavities of the body and to observe how cunningly the structures are adapted to the required motion and rest. First, the cavity of the cranium: it is doubtless needful that the brain be kept still, although from the oddities of the cerebral activities in some individuals it might be surmised that the convolutions of the brain were in a state of hopeless confusion. We are struck by the marvelous adaptation of the skull into planes, buttresses, and recesses for the safe lodgement of the delicate nervous structure. Second, the cavity of the thorax: it would seem as though nature had here reached her highest success, allowing motion to the viscera, expansion and contraction of the protecting walls while providing relative fixation for the great vital organs and encasing them in a frame-work at once unbending and elastic. Third, the abdominal cavity, with which this paper has particularly to do: motion was demanded, and in the interest of motion, strength, solidity and fixation have been largely sacrificed.

The abdominal parietes must be susceptible of great relaxation to admit of the encroachment of the diaphragm in respiration, the occasional distention of the stomach and intestines with gases, and the accommodation of the gravid uterus in the female. The underlying pelvic support avails but little when the abdominal walls are in a state of over-relaxation. It so happens that in a proportion of cases as a result of improper development, frequent gestation and artificial support, the walls of the abdomen lose tone, strength and natural contractility to such an extent that the viscera receive comparatively little external support, and the normal relations of the organ are sustained by ligaments and by delicate membranes that sometimes prove insufficient.

The tendency to displacement thus brought about is greatly favored by the conventional dress adopted by the great majority of women, and as a result we find that from the period of adolescence visceral displacements become relatively more frequent and

1. Read before the Toronto Medical Society, December 14, 1896.

in middle life are more common than is generally supposed. Out of 1,310 cases examined, Glenard found in 148 enteroptosis. Meinert found in 600 women suffering from different diseases enteroptosis in 100. Although Cruveilhier, Virchow and others have pointed out the fact of visceral displacements in the abdomen, and Dietel, in 1864, described the floating kidney and its painful symptoms, we owe to Glenard, of Lyons, the honor of having made a thorough study of enteroptosis, including its etiology, its morbid anatomy and its wide range of symptoms. Since his announcement in 1885 enteroptosis has come to be acknowledged as a definite affection, and considerable study has been given to the subject, particularly in France and Germany.

Glenard believed that the disease begins with downward displacement of the transverse colon near the hepatic flexure as a result of relaxation of the attenuated colo-hepatic ligament. For this there is probably an embryonic basis, as this portion of the large gut is the last to become fixed in place, often not until after birth, as in the colonic "physiologic" constipation of infants, first described by Jacobi, and is, therefore, the first to give way under strain. Thus not only the transverse, but the ascending colon sinks away from its normal relations, and the former is found crossing the abdomen not in the usual line, but obliquely upward and to the left, where it is usually held in position by the strong gastro-colic ligament. The acute bend produced near the hepatic flexure by this prolapse of the intestine gives rise to partial occlusion of the gut, so that the transverse colon is usually found empty and contracted. Above this point are found an unusual fecal accumulation and a partial intestinal stasis. Occasionally the transverse colon makes a bend downward about the middle of its course, but as a rule it occupies the position first described, and may be felt, Glenard claims, by palpation, making the "*corde-colique transverse*."

The right kidney almost invariably accompanies the colon in the descent above described, and is usually in the so-called second or third stage of movable kidney. Besides this, through stretching of the mesenteries, the small intestine is displaced downward, and not infrequently the pyloric end of the stomach, and occasionally the liver and spleen.

Briefly, so much for the anatomical condition. Now as to the factors that give rise to the deformity. It should be repeated that floating kidney is usually accompanied by the displacement of some of the other viscera. Therefore, the factors that appertain to the

etiology of floating kidney belong likewise to ptosis of other abdominal viscera.

Attention is called to the introductory statement that the organs of the abdomen possess relatively poor means of fixation, and that the tendency toward a loss of position is favored by the conventional dress of women. All observers unite in the importance of the latter factor. The affection appears in women five to six times as often as in men, according to Glenard. The same ratio was found by Einhorn.¹ On this point all observers practically coincide. It is rarely found before adolescence, although W. T. Stewart² reports an instance in an infant eight months old as proved by laparotomy. Ewald has found movable kidney in children, and believes that it must be congenital. Similar observations are made by Lindner, Drummond and Kuttner.

It will be noted that the wearing of tight apparel usually begins with adolescence. The artificial support applied not merely by corsets, but by tight-fitting garments even when corsets are excluded lead not only to the wasting of the abdominal muscles, but also to a downward pressure made worse by nearly every movement of the trunk. My colleague, Dr. Matthew D. Mann, has long insisted upon the baneful influence exerted by apparel of this kind upon the abdominal viscera. He informs me that in his laparotomies he finds in fully 50 per cent. of cases the displacement of the transverse colon below the umbilicus, and occasionally it is found in the lower part of the abdomen.

While these causal agencies are doubtless most active, it would appear that another factor of paramount importance must not be lost to sight.

The improper muscular development of the trunk is much more common in women than in men. Of course the corset interferes with the proper development, but aside from the matter of artificial support, the improper posture in standing and sitting, resulting in the bending forward of the shoulders, the backward curving of the dorsum, and the protrusion of the abdomen produce considerable mischief. It is unusual for a young woman to hold her abdomen in proper position, and observation of children will show that the habit begins before corsets are worn. The inference is that the proper position and proper muscular development should be begun in childhood, and should be particularly taught young girls during the developmental period.

Bouveret regards neurasthenia as a cause of the muscular relaxa-

tion and Charcot has also mentioned abdominal atony as the expression of a neurosis. Stiller says "that movable kidney is found especially in the irregular type of development in which slender thorax, lax musculation and scanty adipose are prominent features." In such individuals he has found the 11th and 12th ribs very movable, and on these grounds he regards movable kidney in one sense a congenital disturbance.

Virchow first pointed out that old peritonitis with adhesions may give rise to displacement of the abdominal and pelvic organs, and not a few cases of enteroptosis are at least exaggerated by this means. The removal of large abdominal tumors that have been present for a long time is frequently followed by this sagging of the stomach and intestines through atony of the ligaments and the want of abdominal support. Recently I have had a case of this kind, which terminated in death by vomiting, as a result of traction upon the duodenum.

Pick mentions that long-continued over-distention of the bowels by gas can give rise to intestinal atony and relaxation of the abdominal walls with stagnation of the contents and auto-intoxication as a result. Many observers agree that the wasting of the fatty capsule of the kidney is largely responsible for the unnatural descent of the organ, but this is a contention that would seem to require further demonstration. The fact that in nephroptosis the right kidney is the more often involved is explained by the anatomical relations of the organ. Kendal Franks⁴ discusses the matter fully. It appears that the right kidney is kept in position by the pressure of the liver above and the intestines below, and the left by the spleen and the intestines, respectively. Franks holds that the dislocation of the right kidney is due to the loss of balance between the pressure of the liver above and the intestines below, and that the fat about the kidney has little to do with the matter, as fat tissue is not solid in the living state and cannot therefore afford much support to the kidneys. The loss of balance referred to is explained by the reasons hitherto given—namely, the relaxation of the abdomen, frequent parturition, the removal of abdominal tumors, etc.

Le Gendre⁵ says of the etiology of floating kidney:

(1) That it nearly always occurs in women; (2) that it is exceptional in childhood; (3) it rarely appears before adolescence; (4) it occurs most often after repeated pregnancy; (5) it frequently coincides with dyspepsia, dilatation of the stomach, gastro-intestinal atony, and

enlargement of the liver; (6) it is associated with flaccidity of the abdominal walls; it is somewhat influenced by the pressure of corsets.

I have observed enteroptosis in two male children under ten years of age; repeatedly in young unmarried women who have never engaged in laborious occupations, but who have rather led lives of leisure; several times in stout, obese people, and finally in a large proportion of all females who seek relief from symptoms that apparently arise from indigestion, constipation and anemia. Some of my cases have presented symptoms of transient hydro-nephrosis, others obstruction of the bowels, and still others have suffered from gastric crises with pain and serious vomiting, one case at least having died as a result.

Occasionally, when the right kidney is displaced, the patient suffers pain when lying upon the left side, a symptom mentioned by Osler. With many there is complaint of abdominal pain, usually to the right of the median line, often in the tract of the right ureter. In severity the pain approaches that seen in nephritic colic. It is probably sometimes the result of kinking of the ureter and temporary hydronephrosis, but, judging from the symptoms, the pain is more often of neuralgic character and closely resembles true gastralgia, save that the location of the pain is somewhat different.

Albarran,⁶ at the last meeting of the French Congress of Surgeons, says:

That he has proved by operation that the painful crisis followed by polyuria is not always dependent upon kinking of the ureter and hydro-nephrosis, but rather upon temporary congestion of the organ with augmentation in size. This condition would explain transient albuminuria, occasionally accompanied by casts, mentioned by Sigaud as a result of nephroptosis. He would thus explain most cases of intermittent albuminuria.

Osler⁷ states that:

It may be that in persons with a debilitated and bankrupt nervous system, the tension caused by the sagging of the movable kidney may be at once felt, just as persons find the first indication of physical sagging in subjective sensation of the movements of the heart, of which in health we are not cognisant."

A certain class of patients, either with or without some of the manifestations above described, are sufferers from symptoms generally attributed to neurasthenia. One case with both kidneys floating had for years suffered from intense constipation, partial

food stagnation, abdominal neuralgia, chlorosis, headache, insomnia, great irritability, and inability to engage in mental or physical activity. For her relief one ovary was removed, the rectum received thorough surgical treatment, lavage and internal gastrofaradisation were practised, with careful attention to diet and drugging, the eyes refracted by an acknowledged expert, all without real improvement to the patient. Finally, nephrorrhaphy was practised, and six months afterward the woman was practically restored to health. The bowels move regularly, the diet unrestricted, the patient sleeping well, and for the first time in eight years she enjoyed the pleasures of life, and all this without treatment of any kind.

Enough has been said to show the great frequency of enteroptosis and to present to view the wide variety of its symptomatology. It is proposed at this time to draw your attention particularly to the affection as concerns two of its phases. First, its effects upon digestion; second, its effects upon the blood.

Glenard went so far as to ascribe all digestive disturbances to faulty positions of the abdominal viscera, and his disciple, Sigaud,⁸ also of Lyons, reiterates and emphasises these views. German and American physicians regard this doctrine as an evident exaggeration, but it is gradually coming to be seen that in a certain class of dyspeptics the vast majority are victims of enteroptosis to a greater or less extent. This class by no means includes all so-called nervous dyspeptics. Many of these suffer as a result of reflex irritation arising outside the abdomen. But when all known causes of functional gastric disturbances have been excluded, there remains a considerable group whose symptoms cannot easily be accounted for upon any other hypothesis than enteroptosis. Such patients are often, but not always, slender, with long, narrow chests, and show marks of corset wearing. The upper part of the abdomen is hollowed out and the abdominal pulsation is usually observable. The lower part of the abdomen is prominent, and there is often the lateral extension of the abdomen when the patient is lying upon the back, a feature pointed out by Glenard. Upon palpation the gastric splashing sound is easily produced, and the transverse colon, the "corde-colique transverse" of Glenard, may be felt over the aorta, in the region of the umbilicus, six to ten centimeters either side of the median line. This ridge is believed by Boas to be the pancreas.

Lahnsen⁹, Meinert and others call attention to the tenderness over the solar plexus and to points of tenderness along the spine.

Such patients are almost invariably constipated, and suffer from a variety of digestive symptoms, prominent among which are flatulency, loss of appetite, a sensation of epigastric weight or distention which is made worse by eating, nausea and occasional attacks of pain and vomiting. The liver is usually large, or at any rate the area of hepatic dulness is increased. There is a heavily-coated tongue, a disagreeable taste in the mouth, and often an offensive breath. The complexion is muddy and the skin pigmented. The other symptoms of autointoxication should be added to the above list, among which headache and divers forms of cerebral discomfort are prominent. Examination of the stomach contents reveals delayed digestion and diminished motor activity. Free hydrochloric acid is generally found present, and the combined chlorides abundant. The total acidity is usually high, partly because of the chlorides and largely because of the organic acids resulting from fermentation. The disagreeable odor of the fatty acids is quite uniformly noticed. When free hydrochloric acid is absent, or present in small quantity, lactic acid is to be found, sometimes in considerable amounts.

It will be found necessary to introduce the aspiration tube further than usual in order to empty the stomach. The instrument must be passed 24, sometimes 28, inches beyond the teeth in order to reach the most dependent portion of the stomach. Einhorn's gastrodiaaphane is of great assistance in making a diagnosis. It will be seen that the luminous area produced by the electric light finds its upper limit some distance below the free border of the ribs, and the pouching antrum-pylori is often found in the median line, its lower border several inches below the umbilicus. In order to determine the position of the stomach by percussion or palpation it is usually necessary to distend the organ with gas. It will be seen that the differential diagnosis between gastropptosis and gastroectasis is important. In point of fact it is common to find both conditions at the same time extant. It has long been known that enteroptosis is a factor in the etiology of gastric dilatation. Nevertheless, the latter condition is not always present, although the error is commonly made of regarding a case as one of a lvance gastroectasis, when, in fact, it is merely gastropptosis.

It will be found that in gastropptosis patients usually do badly upon farinaceous and leguminous foods, and milk is generally objectionable. A concentrated diet consisting largely of albuminoids and the drinking of large quantities of water is most satis-

factory. But little is gained by the administration of drugs, save a morning saline draught as a purgative. This is sometimes remarkably inefficient; the flushing of the colon, assisted by the proper posture of the patient, is, in not a few cases, the most reliable method of emptying the bowels.

Most of the gastric symptoms in these cases are alleviated by lavage, electricity and correction of the diet. But the patients are not cured, and there is a return of the discomfort when the treatment is abandoned. Furthermore, there comes a time when the continued employment of lavage leads to loss of weight and sometimes to deterioration of gastric secretion. On the whole, it must be admitted that this class of cases proves refractory to the ordinary method of treatment. The most hopeful course is to direct the therapeutic measures toward the relief of the enteroptosis, after which in most cases real improvement is obtained.

Now as to the second question, the relation of enteroptosis to chlorosis, it should be borne in mind that the importance of the relation was first pointed out by Glenard, and as years have gone by, numerous adherents to the doctrine that visceral displacement was causative of chlorosis have appeared. On this matter Sigaud remarks: "It is not in the study of the composition of the blood, but in that of the digestive tube, the hematopoietic organ par excellence, that one arrives at the comprehension of the pathogenesis of chlorosis, and to find the regimen and hygiene capable of its prevention and cure."

While this writer does not hold that absolutely all cases of chlorosis result from displacements of the abdominal viscera, he evidently believes that such is true of a vast majority. He points out the frequency of hemicrania and albuminuria with chlorosis in these cases, and finds that these symptoms, while resisting the conventional treatment, including iron, are promptly relieved by treatment addressed to enteroptosis.

One of the most prominent supporters of this theory is Meinert,¹⁰ who, in his articles published in 1894 and 1895, holds that chlorosis is a secondary anemia and the direct result of a neurosis depending upon the descent of the stomach and the consequent irritation of the solar plexus.

The frequency of the affection in girls is accounted for by the injurious effects of improper clothing during the developmental period. He believes that the functions of the spleen are disturbed through nervous influences, thus accounting for the blood

changes without necessarily introducing the factor of autointoxication.

Metsling¹¹ in six cases of chlorosis, having made examination by means of inflation with carbonic acid gas and by electric illumination, found that the stomachs were normal, both as to position and size, and came to the conclusion that gastropotosis is not a necessary attendant upon chlorosis. Breiggermann, in a dissertation published during this year, found in eight cases of chlorosis an abnormal sagging of the lower border of the stomach, while the upper border remained in normal position. He found the same condition in seven other cases where patients had never bled, and concludes that the sagging of the lower border of the stomach in chlorosis is a demonstration of the atony that accompanies the depreciated state of the blood. I believe that a fair-minded observer will admit that chlorosis is almost constantly associated with enteroptosis.

While the statement is made that patients who have downward displacement of the kidney and other manifestations of enteroptosis are free from symptoms, and seem none the worse for the deformity, my own experience has been much to the contrary. It is true that in some cases there is complaint made of no special discomfort, while yet it will be found that these individuals are below the ordinary standard of health, and a critical examination will demonstrate that, as a rule, there is disturbance in general nutrition and a depreciation in the blood as to the number of red cells, but especially as to the amount of hemoglobin.

The question naturally arises, which has precedence, chlorosis or enteroptosis? On this point I am not prepared to make a positive statement, but from observation established in my wards since beginning this study, I am inclined toward the opinion that in many cases the visceral sagging is responsible for the indigestion and autointoxication that give rise to the anemia. All will remember the statement of Sir Andrew Clark to the effect that chlorosis is a result of the stercoremia consequent upon constipation, and that the rational treatment of chlorosis must include the most careful attention to the alimentary canal.

In view of the findings of Meinert and others these expressions of Clark become the more suggestive. For those who have doubts upon this matter it is recommended that they systematically examine the position of the stomach, right kidney and transverse colon in all cases of chlorosis, resorting to modern methods of examina-

tion, and the result will prove to them whether or not the enteroptosis is the prime causative factor in the production of this form of anemia; it is certainly frequently associated with it, and doubtless has a marked bearing upon the future history of the case, both as to complete recovery and relapse.

Objections will be made that the ordinary chlorotic improves promptly upon the administration of chalybeates, which would not be the case if the etiology rested upon the visceral displacements. I have no answer to make to this objection, fully realising the importance of iron in the condition. Nevertheless, it is our duty to arrive at a correct understanding of the nature of chlorosis, and in this theory of Glenard we have at least a rational explanation for those very numerous cases of chlorosis that recur, and some of which never completely recover. It is, therefore, recommended that in cases of digestive disturbance, accompanied by chlorosis in which there is found displacement of one or more of the abdominal viscera, we rest not content with changing the diet, with treating the stomach locally, and with the administration of iron, but that we resort to the measures at our command for the restoration of the organs to their proper position, so far as possible.

What can be done for the abatement of enteroptosis? The first treatment suggested was the support of the sagging abdomen by the application of bandages and properly-fitting pads, and relief from all pressure from above downward, through the removal of corsets and other tight-fitting garments. These expedients do actually result in providing comfort to a great majority of cases, although alone not competent to overcome the pain, constipation and other prominent symptoms.

Several of my patients have worn abdominal supports, carefully adjusted, held downward by means of perineal bands, and made to exercise pressure in the lower portion of the abdomen by means of elastic. It was found necessary to have the bandage made by an experienced workman, and fitted to the body perfectly. I have never known a patient voluntarily to lay aside one of these supports. I do not think that they are curative in their effects, but they certainly are palliative. It is necessary in this condition to prevent fecal accumulation, and for that reason the diet should be concentrated, and daily evacuations secured by salines in the morning, assisted by large injections, as heretofore described.

In addition to these measures there should be practised regular Swedish gymnastics, carefully directed by a physician. Of course

it is not always possible to secure skilful manipulation, but where such is available it will be found of very great use, not only for temporary relief, but also for permanent benefit in restoring the organs to place and in fixing them there.

The operator, by grasping the displaced organ and moving it upward by gentle pressure and vibration, will often succeed in its replacement. The patient may be put in a posture resembling Trendelenburg's position, and then a thorough treatment by pressure, vibration and percussion should be carried out. The objects are, of course, to improve the innervation and nutrition of the viscera. Or, the abdomen may be supported from below upward, and trunk rotation, trunk flexion and extension practised with a view to strengthen the abdominal muscles and also to improve the abdominal blood supply. The treatment may be preceded by respiratory movements and other expedients calculated to elevate the thorax and to raise the plane and strengthen the muscles of the diaphragm.

Undoubtedly ordinary spinal treatment, having for its object the improvement of the general innervation, is of value, and finally the application of the general principles of Swedish movements to the remainder of the body will be of advantage in improving the general tone and health of the individual. It will readily be seen that the unintelligent and bungling masseur may accomplish little good and much harm by these measures, if applied without a proper knowledge of anatomy and physiology. It is probable that most of the harm resulting from Swedish gymnastics is owing to the lack of professional interest and professional direction of the work. How physicians can feel that it is safe to entrust their patients even to skilful operators without personal attention to the treatment it is difficult to comprehend. Some time is given to the discussion of this side of the treatment because it is thought to be most practicable in the majority of cases, and because it is known to lead to real and lasting benefit.

I would not go so far as Leopold Fellner,¹² who claims by this means alone to be able to replace and fix the floating kidney, but I am sure that in cases of nephroptosis, under treatment by Swedish gymnastics, the position of the organ is improved and the ligaments are so strengthened that there is less irritation of the kidney and fewer symptoms resulting. In some instances relief is had although the kidney can still be palpated, but apparently occupying a higher plane in the abdomen. The same may be said of the displaced stomach and colon.

There is finally to be considered relief by operative procedures. Although Treeves has produced some relief by removal of portions of the omentum, and although Wier and others have overcome food stagnation by lessening the capacity of the dilated stomach—with the exception of nephrorraphy, there have been few operations for the relief of enteroptosis. As you know, the results of this operation have been discussed pro and con for a number of years with much difference of opinion as to the permanency of the fixation and as to the general benefit that follows it. This question is one of much interest and importance, because in many instances the restoration of the kidney to its position has resulted not only in the relief of the renal symptoms, but the stomach and intestinal symptoms as well. In such cases it is probable that there is not present a very acute bend in the colon or a very sharp flexure in the duodenum. When these latter conditions are present the benefit following the nephrorraphy cannot be expected to do more than to lessen reflex irritation and to relieve the renal crises and the transient hydronephrosis. Doubtless some of the discredit that has followed nephrorraphy depends upon the fact that the stomach and intestine remain displaced, and therefore, the pain, food stagnation and autointoxication continue. What the surgery of the future may be able to accomplish in the way of restoring the fallen alimentary tract remains to be seen.

In the case already referred to there was great displacement and some enlargement of the stomach; the colon was displaced in the ascending and in the right transverse portion. The small intestine was very much depressed, and the gastro-intestinal symptoms were striking. It was a matter of no little surprise to find that when the kidneys were restored to place that all the functions improved, and the gastro-intestinal functions were satisfactorily carried on in spite of the gastropotosis and enteroptosis that continued.

Another case:

A female nurse, widow, aged 35 years, who had always been in good health, strong and rather stout, had suffered during the past year from gastric crises at intervals of a few days or a few weeks. At these times she suffered intense pain in the epigastrium, and vomited with great severity. The crises became so frequent that her life was threatened. The stomach was somewhat displaced downward and the right kidney was floating. It was found to be exquisitely sensitive to pressure. Right nephrorraphy was done May last, since which time the patient has been perfectly relieved of her trouble, has regained her usual

weight and strength and is at present actively engaged as a hard working nurse.

In this case there is some doubt as to whether the symptoms were not entirely due to reflex irritation arising from the kidney. It is possible that the sagging of the stomach had little effect in producing her symptoms. As these doubts appertain to many cases, and as it cannot be settled without an operation, I venture to recommend nephrorraphy in all cases in which the symptoms are aggravated. The procedure is likely to be followed by some benefit if not by complete relief. Following the operation the wearing of the bandage before described should be continued, and such exercises as are likely to strengthen the abdominal wall, without putting undue strain upon the new-formed kidney supports, should be practised.

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2. Med. Record, Feb. 9, 1895.
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11. Wiener Med. Presse, 1895.
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436 FRANKLIN STREET.

REMARKS ON THE PATHOLOGY OF CONGENITAL HYDROCELE.

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THE word hydrocele in its rigorous etymological sense means any tumor which contains a serous liquid, and is consequently the synonym of hydropsy. The older surgeons understood it in this way, and Sabatier wrote on it in 1796 in the following terms: "The name hydrocele is given to aqueous tumors of the scrotum. These tumors are of two kinds: either the water is contained in the fatty tissue or else it is collected in one pocket. In the first case we have hydrocele by infiltration while in the second case we have a collected hydrocele."

Since this time, surgeons have used the word hydrocele in a very restricted way, and are in the habit of using it only to indicate an accumulation of serous liquid in the vaginal tunic of the testicle. But besides this simple vaginal hydrocele, we must consider a second variety. We all know that in the greater number of cases, the vagino-peritoneal canal which is patent during intra-uterine life is obliterated at birth, but it is nevertheless not very infrequent to meet with a patient in which imperfect obliteration or even no obliteration whatever is present. Every time that a nonobliterated or imperfectly obliterated canal exists, a collection of serous fluid may manifest itself by various clinical symptoms, and then we have a congenital hydrocele. The adjective, congenital, is very proper, although some writers think it is not.

It is perhaps in this sense that this disease does not necessarily appear immediately after birth, but on the contrary is often met with in the adult and even in the aged. But as the form that it affects is intimately united to a vice of conformation of the enveloping tissues of the testicle, I cannot see any reason why it should not be considered as congenital in origin.

The definition that I would give for congenital hydrocele is *a collection of a serous liquid in the vagino-peritoneal canal which is incompletely or not at all obliterated.*

I am perfectly well aware that some of the modern authorities are reserved regarding the term of congenital hydrocele when applied to a sac freely communicating with the peritoneal cavity. But I do not see any reason for this, nor do I understand why they should attribute other theories to those serous cysts which are sometimes found on the spermatic cord. I think with the great majority of writers that these cysts are due to the presence in the cord of nonobliterated parts of the vagino-peritoneal canal. These aberrant diverticuli are in the beginning empty, but under some influence which sets up inflammation of their walls, they fill up with a serous liquid and thus form the cysts in question.

Congenital hydrocele is far from presenting the same anatomical type in every case, and there are numerous varieties which are easily understood if we will consider anatomy and embryology. And in the first place we will divide the various kinds of hydrocele in two large classes. The first class comprises communicating hydrocele, that is to say those which are made up by the vagino-peritoneal canal and thus remain in communication with the peritoneal cavity.

The second class comprises hydrocele formed by some part of the vagino-peritoneal canal, but which has lost all communication with the peritoneal cavity. This hydrocele may be called encysted. Of course it is understood that I do not include ordinary hydrocele of the vaginal tunic, which is nothing more than an encysted hydrocele in a normal cavity.

Let us now consider the first class or communicating hydrocele.

The first variety is formed by a hydrocele which has its homologue in vagino-testicular hernia, and I would call this variety peritoneo-testicular hydrocele. This is the most frequent type and is the result of a complete nonobliteration of the vagino-peritoneal canal.

In the case in which the fourth stricture exists, which as we know is not always present in the vagino-peritoneal canal, we have to deal with a peritoneo-funiculo-testicular hydrocele and this corresponds to the type of funiculo-testicular hernia.

If nonobliteration of the vagino-peritoneal canal only extends to the entire peritesticular vaginal serous membrane, we have the type of peritoneo-funicular hydrocele which corresponds to funiculo-vaginal hernia.

Now let us suppose that the obliteration of the vagino-peritoneal canal stops at the inguinal ampulla, we then have a peritoneo-inguinal hydrocele which is similar to the interstitial inguinal hernia.

On the other hand, if the obliteration of the vagino-peritoneal canal extends up to the properitoneal ampulla we have the peritoneo-properitoneal hydrocele which corresponds to the properitoneal inguinal hernia.

These five varieties of hydrocele are not met with with equal frequency. The first two types are surely the most common and as to the others they are probably very much more infrequent. Now what I would like to demonstrate is the striking similarity between congenital hydrocele and congenital hernia.

We all know that hernia is frequently complicated by congenital hydrocele, from the fact of the persistence of the vagino-peritoneal canal which forms an open passage through which the intestine or mesentery pass. Epiplocele and enterocele are not the only accidents which may render the contents of a congenital hydrocele most varied. Sometimes we will find that there is an ectopia of the testicle, as well as some diverticuli, the nature of which is still a very disputed question.

Considering now the question of encysted hydrocele, it may be said that they can also be very properly called funicular hydrocele, because they are always to be found on some part of the spermatic cord, corresponding to a nonobliterated portion of the vagino-peritoneal canal.

The first variety of this type of hydrocele comprises the hydrocele "en bissac" of Dupuytren and should be attributed to the persistence of a more or less considerable portion of the vagino-peritoneal canal which is only obliterated at its upper part and continues below with the vaginal tunic of the testicle.

The second variety of encysted hydrocele is the encysted hydrocele of the cord properly speaking. This hydrocele represents the remains of an incompletely obliterated vagino-peritoneal canal and may be seated quite high up in the interior of the inguinal canal, but generally it is near the external ring of the great oblique muscle through which it projects.

Duplay has mentioned a third variety of encysted hydrocele occurring in the vaginal serous membrane of the testicle. This variety is to be considered rather as an aberrant type of ordinary hydrocele, because it has nothing to do with the nonobliteration of the vagino-peritoneal canal.

The pathogenesis of congenital hydrocele is one of the most obscure questions of modern surgery and many theories have been admitted to explain the origin of the serous liquid which they contain. The production of hydrocele on account of the poor general health of the mother or the child, can be admitted, because we know very well that certain diseases, such as those of the nervous system, rheumatism and syphilis, act on the system of the child as well as that of the mother. But as yet nobody has found that I am aware of any completely localised affection which may be attributed to the paternal or maternal antecedents; or if such antecedents may be brought up, they are without doubt a simple coincidence. Lebat places the origin of the pathological liquid in an alteration of the serous membrane lining the vagino-peritoneal canal, and is the consequence of a molecular process which should be sought for in the development of the fetus itself.

As soon as the testicle has come down, that is to say usually toward the third month of intrauterine life, sometimes later, a series of phenomena take place in the vagino-peritoneal canal which have for a result the closing of the cavity, which then

will present all the characters of a serous cavity and which will be retained after the child is born.

The obliteration is the result of the phenomena that Hunter long ago designated under the name of adhesive inflammation. This process does not follow an irritation produced by the testicle at the time when it enters the scrotum: it is constant, because it is intimately united to the nutritive activity and evolution which is the elementary principle of the development of man from the first embryonic period up to old age. It is only, consequently, the continuation of this inflammatory process itself, in which, according to German writers, human life appears to have its origin.

If we examine the manner of obliteration of the sac we will first notice a falling off of the epithelium which is the first condition for adhesions to occur between two serous surfaces. Soon we will see a neomembrane appear made up of young connective tissue elements and supplied by a very large number of capillary vessels. An anastomosis is not long in taking place between these newly formed vessels and thus an adhesion is formed. Nevertheless in order that the inflammatory process ends in an obliteration, it is not sufficient that there be a desquamation of the serous membrane and the formation of neomembranes, but it is necessary that both the walls of the cavity be in contact in order that the adhesion can occur. These conditions, unless they be exceptional pathological circumstances, are realized in the vagino-peritoneal canal. But low down at the place where this canal increases in size, in order to form a cavity, the two surfaces are no longer in such favorable conditions for the formation of adhesions.

By its many movements in the scrotum, the testicle prevents the visceral layer which covers it from making any intimate adhesions with the parietal serous membrane and, consequently, the processes which in the canal end in obliteration may also take place here, but the two walls not being usually in contact cannot become adherent and an excremental product is formed consisting of an albumino fibrinous fluid. This is so true that by examination of the liquid collection a simple quantity of endosmo-exosmotic serosity is not only found, but an exudation of principals which are due to inflammation of the serous membrane are present as well. Lannelongue has always found quite large quantities of fibrine, and if it is true that sometimes this substance is also found in hydrocele in the adult, as has been demonstrated by Mehol, it is well

to add that when there is any, it is always in exceedingly small quantity.

Thickening of the vaginal tunic that has always been found by Lannelongue testifies to an inflammatory condition. The skin, instead of preserving its normal color, is often red and erythematous, which is always considered as due to friction during labor and to the irritation resulting from the constant contact with the urine; but this inflammatory condition may also be a distant phenomena of the same conditions of development, because I have sometimes remarked that children of fourteen or sixteen months of age, and who had hydrocele from birth, and were kept in the very best of hygienic conditions, presented this condition of the scrotum.

The inflammation is never sufficiently acute to end in a phlogosis, which histologically is found to be hemorrhagic, red and white blood corpuscles being present. The processes take place slowly and the exudation continues to be produced in the vaginal membrane up to the time that an unequal activity between the organism and the collected liquid occurs, when absorption takes place.

But usually a collection thus produced becomes in itself a permanent cause of irritation and keeps up the inflammation. Consequently when this pathological process has lasted for a certain time, there is a change in the structure of the tissue and absorption can no longer take place unless an appropriate treatment is adopted. The membrane is thick and hard and is no longer capable of receiving the liquid which ought to be absorbed. Then when the sac is emptied the liquid will form again, and after each puncture the same phenomena will occur; thus a cure cannot be brought about, because the lack of tonicity of the vessels continues to allow the passage of serosity through their walls and the inflammation is not sufficiently intense for the formation of neomembranes sufficiently resistant and durable; whereas if the circulation was more active, the thinness of the walls would allow the liquid to be absorbed. The membranes will disappear of their own accord when the walls which support them have become normal.

After these facts it seems probable that congenital hydrocele of the vaginal tunic is simply a phenomena of development. Now the question arises, Why does not a liquid collection take place in every case? To answer this question we must remember that the constitution and temperament have certainly a relationship to the quantity and quality of the liquid and certainly play a large part. In a strong child of a sanguinous temperament the collection will

occur more rapidly than in one with a lymphatic temperament, but nevertheless absorption will be just as complete in either. I have noticed that these liquid collections which occur with rapidity undergo a rapid absorption.

This theory of Lannelongue which in the first place appears very acceptable does not, however, fully convince me that this is the real truth of the matter, but I am far from denying that inflammatory phenomena cannot occur in the vagino-peritoneal canal, but I do not think they can take place unless some accident arises which is the starting point.

Several authorities have considered the origin of hydrocele as due to the compression of the vessels which enter into the vaginal tunic or to the spermatic vessels. They have also incriminated all sorts of pressure to which a child is exposed during labor, especially if the latter is a difficult one, and during the early part of its existence when the cries and the efforts of the child push the viscera against the spermatic vessels and thus compress them. These same vessels may also be pressed upon at this age in the inguinal canal, especially at its orifices.

For other authorities, a large share should be given to the difficulties of labor and especially breech presentations in the pathogenesis of congenital hydrocele. It happens that in these cases the parts near the scrotum and the scrotum itself are compressed by the uterine contractions and the serous membrane of the testicle becomes the seat of an abundant afflux of blood.

Nelaton believed that friction of the scrotum, as well as irritation by contact with urine and feces, may explain the increase of the secretion in the vaginal tunic. This theory has also been adopted by several authorities, and Sejournet says that the conditions in which we observe the origin and the progress of the vaginal collection have in a certain measure given us a clue to the pathogenesis of hydrocele in the newly-born. The children that the latter authority has had under his care and who presented a hydrocele, had all an erythema, sometimes localised at the genital organs, at others it was generalised over the buttocks, thighs, scrotum and penis. This eruption was red, shiny and hot and appeared to be the cause of the hydrocele. The cutaneous affection little by little extended to the canal of the urethra and from there reached the cord and the vaginal tunic, in which it produced a liquid collection. This pathological extension appeared to explain all, because the following steps were noted, viz.: genital erythema, urethritis,

funiculitis, epididymitis and lastly vaginalitis, such were the successive steps taken by the inflammatory process.

What confirms Sejournet in his opinion is, in the first place, the existence of a urethritis which caused painful micturition, because the child cried out each time he passed his water, as well as tumefaction of the spermatic cord found in some few cases, thus indicating a certain degree of funiculitis, and sometimes also he found the epididymis enlarged and the testicle was also larger than its mate.

This manner of progression of the inflammation is similar to that of erysipelas extending into the depth of the genital organs, and that it was a real ascending infection cannot be held in doubt, because in the cases he reports there was always a coincidence of hydrocele, or, better, orchi-vaginalitis, with erythema of the genital organs.

Some authorities, principally German surgeons, consider ectopia of the testicle as a cause of congenital hydrocele. Ectopia is not infrequent, as is shown by the statistics of Trélat, Holmes, LeDentu and others. According to this hypothesis the testicle can provoke a serous collection in two different ways: either by acting like a foreign body, for example as in inguinal ectopia, where it produces an inflammation of the serous membrane capable of producing a liquid; or by sudden movements or a shock, the gland itself becomes irritated and produces an inflammation of the vaginal serous membrane. Wechselmann mentions a case in which the left testicle was not in the scrotum at birth; a few days afterward it had descended into its normal place, but a liquid collection could be felt in the vaginal tunic. Chassaignac mentions the presence of hydrocele following a tardy descent of the testicles, while Labat out of sixteen cases only met with this condition of affairs once.

Marimont called attention in 1874 to cysts of the epididymis. The pathogenesis of these cysts has been studied thoroughly by Poirier, who has been able to demonstrate that they develop in the vaginal serous membrane. Consequently it may be asked if the presence of these small cysts may not have an influence on the production of liquid in the vaginal serous membrane and this may be the case, because by their presence they play the part of a foreign body and thus are the cause of irritation. Let me remark that these cysts which are well known in the adult and in the aged are not well known in children.

According to Guersant the production of congenital hydrocele is to be easily understood. During intrauterine life at the time when the testicles go down into the scrotum it is easy to admit that some of the serous liquid contained in the peritoneal cavity accompanies these organs and enters into the sac formed by the vaginal tunic along with them. The presence of this liquid may be the means of preventing the obliteration between the two serous membranes.

We now come to a new theory which attributes the origin of the liquid contained in hydrocele to the peritoneal cavity and thus supposes that there was a preëxisting fluid in the peritoneum.

The experiments of Richet and Delbet have perfectly demonstrated that the peritoneal cavity is absolutely free from any liquid or moisture when in the normal condition. It is consequently necessary to admit that there has been some pathological process to which is due the production of the peritoneal liquid and Verneuil understood this perfectly well, for he says that the nature and the origin of congenital hydrocele demands that the anatomical conditions, which are a communication between the vaginal sac and the peritoneal cavity and pathological changes of the peritoneum, that is to say, a hypersecretion of this membrane sufficiently intense to be forced through the ring, must be present.

Now, what are these pathological conditions? The possibility of an essential peritoneal hydropsy which is idiopathic, occurring spontaneously without any pathological cause and leaving no traces of inflammation after it has been put forward as an explanation. But those writers who have admitted this supposition have only based it on incomplete observation.

Then came the theory of inflammation of the peritoneum, due to the abnormal presence of the testicle in the abdomen. According to the partisans of this theory, the testicle produces a slight irritation of the peritoneum which is sufficient to produce the pathological exudation. Richter, after many careful researches, only found vaginal hydrocele in one case out of many in which the testicle had not entered the scrotum.

According to Faure the peritoneum does not need to be inflamed in order to secrete an exudate. It is sufficient to have an increase of pressure in the subperitoneal vessels and particularly in the portal system. It is for this writer rather more of a pathological condition of the peritoneum, which without any local symptom is powerfully felt throughout the entire economy. In order to uphold

his theory he brings forward the abundance of the collection which, in order to arrive at the orifice of the vagino-peritoneal canal, must necessarily fill the entire pelvis and also the spontaneous disappearance of the liquid or when this occurs after a bandage has been worn.

This last theory has been vigorously attacked by Blum, who asks how a bandage may influence the condition if the peritoneum is thus altered, and what becomes of the liquid secreted when the vagino-peritoneal canal becomes obliterated? If this were the case, would the liquid not continue to increase within the abdomen and thus produce an ascitis which would be remarked by the clinical signs to which it would give rise? Or, what would be this special pathological condition of the peritoneum which after producing so large a collection would disappear entirely of itself?

Now, in the first place it must be remembered that the cure of a congenital hydrocele following an obliteration of the vagino-peritoneal canal is no myth and Curling has seen a cure result after a bandage has been worn. The radical cures obtained lately after obliteration of the canal also pleads in favor of this opinion and the cases reported by Arnison, Southam and Phocas all go to prove this.

Now, as to the existence of this ascitis that according to Blum should be found if the liquid has really a peritoneal origin, and it certainly occurs in a good many cases, Phocas says that the peritoneal origin of these collections may be demonstrated clinically. In three cases he was able to demonstrate this without a doubt by finding not only dulness on percussion, but a sensation of liquid which was perceptible in the subumbilical region of the abdomen. In the first case the latter symptom was only felt two months after a successful operation for the hydrocele but before the operation there was a subumbilical dulness. The second case was a child of six years, who presented a hydrocele, on the right side in a sac containing a congenital hernia which had been treated by bandages. The supra-umbilical veins were quite large and symptoms of ascitis were very distinct.

These facts led Phocas to carefully explore the abdomen in cases of congenital hydrocele and nearly always he has been able to find a slight dulness in the hypogastric region, which he attributes to a certain quantity of liquid contained in the abdomen. I have found an ascitis, with congenital right-sided hydrocele, in a child with marked symptoms of hereditary syphilis. Phocas further

says that in a certain number of other cases he was able to discover the nature of the ascitis and to demonstrate the real cause of hydrocele and mentions the cases reported by Lorain and Letulle, in which purulent peritonitis gave rise to a congenital hydrocele. But in the cases which Phocas observed it was tuberculosis of the peritoneum which showed its presence by a congenital hydrocele.

In most of the cases which he relates and especially the first, the tuberculous nature of the hydrocele appears to me perfectly correct; the only question is to know if the tuberculosis commenced in the peritoneum and from there extended down the vagino-peritoneal canal or whether the opposite occurred.

If congenital hydrocele that is observed in these cases was only a symptom of an ascitis, it would hardly be worth while mentioning the fact and a hydrocele would then be very similar to the liquid of an omphalocele, which is frequently met with in cases of ascitis. But here it is not the ascitis which first calls the attention of the surgeon, but it is the hydrocele. The whole clinical picture is dominated by the presence of a classical reduceable hydrocele occurring in a child. The patient's parents only consider the local trouble and it is only for this that they seek advice.

The relationship which unites these coinciding affections—namely, hydrocele and ascitis,—is not easy to determine. Two hypotheses may be admitted.

In the first, the following hypothesis may be offered to explain the succession of the pathological phenomena. A certain quantity of liquid arises in the peritoneum and this liquid being in small quantity gravitates to the inclined portions of the serous membrane. Then, at a certain time, it collects in the vagino-peritoneal canal, which by a congenital defect has remained unobliterated.

Consequently, it is on account of this congenital defect as well as mechanically that a hydrocele is formed after a tuberculous ascitis, as it could be produced by any kind of ascitis occurring in a subject in which nonobliteration of the canal existed. It would be more simple to compare a hydrocele of this type to a liquid omphalocele which so often accompanies ascitic collections.

In the second hypothesis we may consider the condition in a different manner. In a child with a predisposition to tuberculosis, an unobliterated vagino-peritoneal canal may become the seat of a local tuberculosis produced by a traumatism, general disease or some other cause. This tuberculosis produces a serous collection in the canal, but on account of the large communication of the

former with the peritoneal cavity, the infection extends to the peritoneum. Thus in this hypothesis the vagino-peritoneal canal plays the most important part.

The majority of reported cases would lead me to adopt the latter as most probable, because peritonitis in 75 per cent. of the cases reported was only a secondary affair in the symptomatological picture. The children were brought for a hydrocele, and the peritonitis being latent, produced few functional troubles for a long time.

Jonnesco has collected nine published cases of tuberculosis in hernia, but in the majority of cases reported by Phocas the congenital hydrocele was not tuberculous.

There is a particular form of congenital hydrocele which may be the first symptom of a tuberculosis of the peritoneum, but the presence of this form of hydrocele still remains to be studied.

Now, is this variety of hydrocele frequent? It probably is, but reported cases are not conclusive. Perhaps some have been reported, but they are not as yet generally known and for several reasons. In the first place it may happen that the severe symptoms of visceral tuberculosis takes up the entire attention of the physician in charge, who neglects finding the hydrocele and ascitis, especially if, as it often happens, the latter is difficult to discover, being only detected by percussion. On the other hand, there are many examples of beginning tuberculous peritonitis which get well after having produced a slight exudation in the peritoneal cavity.

A few words now on the diagnosis of tuberculous hydrocele in children.

The tumor of the scrotum is the first, because it is usually this that brings the patient to the surgeon. In the majority of cases the tumor is on the right side and the presence of liquid is quickly made out by transparency and fluctuation. As we are always dealing with a communicating hydrocele the fluid may be pushed into the peritoneum, but not always with the same ease in every case. Sometimes if the patient is made to lie down the liquid will disappear, but at others we may be obliged to perform taxis in order to obtain the same result. In some cases it may be necessary to keep the patient lying down for some time before reduction can be accomplished.

Reduction is usually made without any noise unless there is a hernia complicating the hydrocele, in which case the characteristic

sound as the intestine passes into the peritoneal cavity will be heard. As to the size of the sac it varies according to the case and also with the time of the day: it increases under the influence of coughing or an effort and it may acquire such a tension that fluctuation may be wanting. Not infrequently the cord and epididymis are increased in size and are sensitive to pressure.

Sometimes there may be more or less considerable swelling of the abdomen and a complementary supra-umbilical venous circulation and then one may be able to elicit the presence of liquid. But usually these phenomena are not very marked and they must be made out by percussion of the abdomen and a zone of dulness will be found extending above the pubis and over the iliac fossa, whose principal character is to become displaced when the patient changes his position. It is also well to ascertain if there is any pain on pressure in the right iliac fossa.

The general condition of the patient will be usually that found in tuberculosis, but this may not always be the case. Some patients will present some signs of a visceral tuberculosis.

The diagnosis of tuberculous hydrocele should consider the presence of a coinciding ascitis and secondly, the nature of this ascitis.

A hydrocele will generally be easily made out by the ordinary signs. Nevertheless a congenital hernia may coëxist, in which case the diagnosis is more delicate. As to the ascitis it is often difficult to make out, but if the patient be carefully examined several times a day and care is taken to empty his bladder, the making of the diagnosis will be rendered easier.

And lastly, in order to find out the nature of the hydrocele and the coëxisting ascitis, we should take into account both hereditary and personal antecedents of the patient, the general condition, the condition of the viscera and in particular the lungs. Every time that it is possible we should examine the liquid taken from the hydrocele by an aspirating needle, in order to make cultures and experimental inoculations in animals. In closing this paper, I would say that beside the tuberculous congenital hydrocele, which has been described by Phocas, there are also hydroceles which are symptomatic of ascites having a different nature, as of syphilis for example.

AILMENTS OF VOICE USERS.¹

By HORACE CLARK, A. B., M. D., of Buffalo.

THE object of this paper is to consider the value of cultivation of the voice as a prophylactic measure; as an adjunct to treatment of diseases in the untrained voiceuser; and to point out a few of the commoner hindrances to successful study in professional singers and speakers. The argument is of general importance as well; for these diseases are not restricted to voiceusers, as that term is ordinarily understood; nor does every case fall to the special surgeon to treat. Specialists in this department of surgery will insist that in such cases results are far better when patients will study and practise the fundamentals of voice cultivation, subsequently to operative procedure. By this I would be understood to mean the proper adaptation of part to purpose: each part must do only and properly its own allotted task, and must render its own work and that of other parts easier and more perfect by being fixed and free to work as a component and essential part of one nicely adjusted piece of machinery. Refinements of voice cultivation are a luxury, except to the professional, and unnecessary for practical purposes.

RULES FOR BREATHING.

There are three different kinds of breathing:

(1) Diaphragm breathing, (2) rib breathing, (3) collar-bone breathing. Diaphragm and rib breathing constitute the right way; collar-bone breathing is totally wrong.

Exercise No. 1.—(1) Lie upon the back. (2) Inhale slowly through the nostrils. The abdomen will rise, the lower part of the chest will expand sideways, and the upper part will be pushed forward. (3) Now hold the breath, not by closing the glottis or voice-box, but by keeping the diaphragm down. (4) Count four, at the rate of about sixty per minute, and let the breath go *suddenly*. Increase the length of time of holding the breath two seconds per week, not exceeding twelve seconds as a maximum limit.

(1) Inhale rapidly through the nostrils. (2) Do not hold the breath, but expire slowly and evenly. A test of successful expiration is to breathe against a candle-flame, which should not wave to and fro, but be blown steadily away.

1. Extracts from a paper read before the Surgical section, Buffalo Academy of Medicine, December 3, 1895

(1) Inspire slowly. (2) Expire slowly. This is easily done, the first two exercises having been learned.

VOICE FATIGUE.

Have plenty of breath, and have it under control. Commence to expire only at the moment when the vocal cords are to be set in vibration. Never use the voice when there is indication of its impairment. In singing or speaking, avoid inclement weather, or facing a stormy wind, and foul air and noise. Do not exhaust all the air taken in at one inspiration before beginning another.

ATTACK.

By this is meant the exact approximation of the vocal cords at the moment of phonation. The voice-box is opened and closed as follows :

Exercise No. 2.—(1) In the pitch of the spoken voice sing the combinations OO, AH, AI, EE, and follow each one by a short inspiration.

In this exercise avoid two things, (1) "Glide," (2) "Click" of the Glottis. This is done as follows: (1) Pronounce the word "UP" vigorously. (2) Whisper the vowel "u" as pronounced in "UP." Then sing "AH." In singing these tones as suggested, it is important not to overcrowd the lungs. The remedy for this is to sing a few tones without inspiring.

RESONANCE.

This is defined when a hollow shell is held close to the ear. Mistakes made in this matter relate to the mouth, lips, tongue and soft palate. Easy alteration in the position of the jaws and lips is essential as a first principle in studying resonance.

Exercise No. 3.—(1) Arrange a mirror so that all the parts can be readily seen. (2) Open the mouth as widely as possible in every direction. (3) Look at the tongue, the soft palate and the back of the throat. (4) Close the mouth again and repeat this procedure several times. (5) Open the mouth widely enough to put two fingers between the teeth; then smile, so as to draw the corners of the mouth sideways until they are each bordered by a perpendicular line. Now suddenly pucker the lips as if to whistle. (6) Smile with lips firmly closed, drawing the corners of the mouth sideways as much as possible; then pucker the lips as if to whistle, but leave no aperture. These exercises seem absurd, but they render excellent service.

CONTROL OF THE TONGUE.

Exercise No. 4.—(1) Open the mouth wide. Put out the tongue straight and as far as possible. Draw it back quickly and try to make it lie flat and without tremor, touching the teeth all around, especially the back teeth. (2) Put the tip of the tongue against the lower front teeth, and push it out as far as possible. Then draw it back quickly as in the first exercise. (3) Keep the root of the tongue flat; raise the tip and push it perpendicularly and slowly towards the roof of the mouth. Gradually lower it again until it has assumed its original position. (4) Raise the tip of the tongue as in 3, and move it gradually from side to side, so that its highest point will describe a semi-circle.

GYMNASTICS OF THE SOFT PALATE.

The soft palate can be raised or lowered so that the throat can be completely shut off from the nose or mouth.

Exercise No. 5.—(1) Breathe through the mouth; the soft palate will be moderately raised, the uvula retaining its normal shape and position. In expiration through the mouth, the uvula will be thrown a little forward. (2) Open the mouth again, and try to breathe through the nose. The soft palate will fall, and the tongue will rise a little. Exhale in the same way, and the mouth will shut at the back. (3) Inhale through the nostrils, the mouth being wide open. Prevent the tongue from rising. The soft palate will now come down more firmly. Exhale through the mouth, and the soft palate will rise again.

These exercises greatly strengthen the muscles of the soft palate and the benefit to the voice is incalculable.

“Flexibility” relates to tightening or relaxing the vocal cords. A “Register” consists of a series of tones produced by the same mechanism, and there are five “registers,” but these are matters which cannot be included in a tabular view of voice exercises.

The above was supplemented by illustration and explanation.

In conclusion, I would call the lay-reader’s attention to the fact that the site of disease is usually fixed by the patient where the trouble is felt, whereas in a large majority of cases of loss of the singing or speaking voice, for example, the larynx proper escapes injury unless, indeed, there is coëxistant constitutional mischief. Such cases are usually caused by digestive disturbances, or faulty mechanism in the resonating cavities which has been strained, or whose membranes has become acutely inflamed.

A source of trouble to the voiceuser, not infrequently overlooked, is to be found in the glands at the base of the tongue. I have seen many cases in which extensive intranasal surgery was done to relieve obstinate cough, without result; whereas the removal of hypertrophied glands at the base of the tongue gave immediate and permanent cure.

846 ELLICOTT SQUARE.

Clinical Report.

A UTERINE FIBROID OPERATION.¹

BY DR. M. D. MANN, Buffalo, N. Y.

REPORTED BY WM. STANTON, M. D., Varysburg, N. Y.

LATE Wednesday P. M., February 3d, I was called to see Mrs. T. I found her in bed, suffering from occasional pains which, she said, were "exactly like labor pains." She appeared well nourished, and had done her own housework until the day previous. Countenance was good, except a peculiar anxious expression. Temperature, 100°. Pulse, 90, and respiration, 22. She gave the following history: Age, 42. Mother of two children, aged 15 and 18 years. Had a miscarriage ten years ago. No other pregnancies. Menstruates regularly, but suffers from dysmenorrhea and leucorrhea. About three years ago she noticed something wrong in the vagina, at first only being aware of its presence at the menstrual period. After a time, however, there was a constant sensation, as of some object in the vagina. During the following two years she was treated by one or two irregulars for falling of the womb. One or two members of this Association who examined her gave her no treatment, but urged her to consult a specialist.

Meanwhile the growth had steadily increased in size until it filled the vagina, and at times would protrude through the vulva; then she would put it back by lying down and manipulating it much the same as a hernia.

For about a year she had consulted no one and taken no treatment. Some four weeks previous she had slipped on an icy step and slid down in a sitting position, striking heavily on five or six steps, but had noticed no ill effects beyond the momentary jar. The day before, she began to suffer with severe pains, resembling labor pains, but it being near the expected menstruation and she accustomed to similar pains at this time, thought nothing of it until the tumor was expelled from the vulva. She still believed it to be her uterus enlarged and deceased, and, taking her

1. Read before the Wyoming County Medical Association, April 13, 1897.

bed, attempted to replace it. Failing in this, she called me to perform the service for her.

On examination I found protruding from the vulva a rather soft, yielding tumor, the size of a seven-months' fetal head, which was covered by a membrane resembling mucus and of a dark, purplish color, suggesting a large placenta in its membranes. It was attached by a pedicle about two inches in diameter and four inches long, as stretched. Following up this pedicle it seemed to spread out again into a solid mass of tissue, which completely filled the pelvic cavity. I could not find the cervix or any trace of it, although when she had pains a solid body, about the size of a normal uterus, could be plainly felt in the abdomen, like a nodule on the mass in the pelvis. I diagnosed uterine fibroid and advised its removal as soon as possible. Counsel being desired, Dr. Seeley was called and he concurring in diagnosis and advice Dr. Mann was called.

Thursday she began to show unmistakable symptoms of septicemia, and as the exposed growth was showing signs of disintegration I ligated the pedicle as high as possible and removed the tumor. The pains ceased and did not return until Friday noon, but the septic symptoms steadily advanced. About noon Friday she began to have terrific pains and in a short time gave birth to a second tumor, resembling the first in all respects except size. This one was fully as large as a man's head. It was now plain how the first pedicle spread out above. This growth had so completely blocked the vagina that we failed to find any passage by it. There was a quantity of pus retained above it and its attachment was to the cervix by a short pedicle, about two and one-half inches in diameter. The os was now easily found and, like the entire uterus, was almost normal. Very soon after expelling this she began to suffer from profound shock and only by the hypodermic use of strychnine, nitroglycerine and quantities of brandy, together with slings, hot applications, rubbing, enemias of whisky, and the like, did we keep her alive until Dr. Mann came at 5.15 p. m.

She was hastily prepared for operation, not with any expectation of saving her, but as a last and only resort. She took ether finely, her pulse improved under it, she came quickly out of it, and at 5.45 was back in bed. She seemed to rally for a time, was conscious and rational. Pulse better than for thirty-six hours, but then she began to fail and went down in spite of our best efforts. She died one hour after the operation, overcome by the septic poisoning.

The larger tumor weighed $4\frac{1}{2}$ lbs. The smaller one I estimated at $1\frac{1}{2}$ lbs. They had apparently been of loose, fibrous structure and quite vascular. Decomposition was far advanced and the large

pedicle had allowed the products of decomposition to pass freely into the circulation. It was thought perhaps the violence of the expelling pains had torn the peritoneum, or forced some of the retained pus into the peritoneal cavity, but, a post-mortem being refused, we could neither verify nor disprove these suggestions.

The operation consisted in drawing down the uterus, removing the pedicle, clamping the bleeding surfaces, irrigating with hot sublimated solution and packing with iodofom gauze, with the clamps in position and a catheter in the bladder. Hemorrhage was slight and the operation very quickly performed, the patient not being under the anesthetic to exceed twelve or fifteen minutes, and was back in bed thirty minutes after Dr. Mann arrived.

ABUSE OF THE DISPENSARY.—It may be broadly stated, as the result of exhaustive statistical study, that fully 50 per cent. of the patients who apply for free medical aid are totally undeserving of such charity. The main reason for this is that no effectual means are taken by the managers of these institutions to correct the abuse. For the sake of donations and the ostensible good accomplished by the treatment of a large number of patients, these charities are managed on the usual business principles of proving their right to be and to prosper on the assumed basis of demand and supply. In New York alone there are 116 dispensaries, each one of which is vying with the other in propagating the worst form of pauperism. The public is being taught that nothing is more freely given than medical advice to any who may ask for it. The institutions in question are crowded daily by hundreds of well-to-do patients, who are encouraged to defraud the really poor and to cheat the charitably disposed doctor of his legitimate fee. All this goes on in spite of protests and in open defiance of all the laws of ordinary decency and fair play. The managers of these so-called charities, who virtually have the matter in their own hands, while pretending to deplore present conditions are covertly combating every effort at reform on the ground of its impracticability.—DR. GEORGE F. SHRADY in *June Forum*.

TUBERCULOSIS IN INFANTS.—It would seem from recent inquiry that intrauterine infection seldom happens, even when the mother is suffering with tubercular disease in an advanced form. In nearly all infants dying from tuberculous the germ entered the system through the air-passages.—*Western Medical Review*.

BUFFALO MEDICAL JOURNAL.

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AMERICAN MEDICAL ASSOCIATION.—THE JUBILEE MEETING.

THE fiftieth anniversary of the founding of the American Medical Association was appropriately celebrated at Philadelphia, June 1-4, 1897. This occasion, in many respects remarkable, is furnishing an opportunity for much comment on the part of medical journals and in most instances they have bestowed unstinted praise upon the management and character of the meeting.

As a matter of fact there is much to commend and somewhat to reprehend in relation to both. The committee of arrangements, under the chairmanship of Dr. Hobart Amory Hare, performed its part of the work in a praiseworthy manner. Dr. Hare, himself, displayed great generalship in the difficult task to which he was assigned and his lieutenants were well chosen. The difficult problem of registration when wellnigh unto 2,000 men must be recorded was as well handled as it can be under a system that requires each committee of arrangements to formulate its own plans.

The interest in this association is always of a two-fold nature,—namely, scientific and social. The scientific work done at Philadelphia will soon be published in the medical journals, hence need not here be commented on at length. The general impression at the meeting was that the scientific part of the program was about up to the usual average of the association—not better, not worse. The president, Dr. Senn, though a great surgeon, made a poor presiding officer. His voice was pitched in a low key, which made it difficult to hear even what he did say. His presidential address, too, was mediocre in character. The addresses of Drs. Flint, Keen and Hamilton were listened to with interest and each made some telling points—Flint in his introductory remarks, Keen in regard

to the antivivisectionists, while Hamilton showed himself a master of his whole subject.

The addresses of Mayor Warwick and the Hon. Charles Emory Smith on the first day, and those of the President of the United States and Governor Hastings on the second day, were all neat bits of rhetoric and some of them rose to a high plane of oratory, notably that of Governor Hastings. President McKinley condensed a great speech into a few words—a gift that is natural to him and which few possess.

The jubilee exercises proper on the third day might have been worse and there was abundant room to have made them better. The occasion afforded ample opportunity for hero worshippers to display their enthusiasm and otherwise it was a restful break in the routine. Dr. N. S. Davis read his address in good voice and the subject-matter was an interesting bit of history. The opportunity was here afforded to invite the president of the Medical Society of the State of New York to participate in the proceedings at least by his personal presence; but it was lost, more's the pity. To completely ignore a great medical society, that was founded in 1806 and was the first organised body to give direction to medical education in the United States, in which also the American Medical Association had its birth and after which its form of government was modeled, was in our view an error if not a misfortune. These jubilee exercises were distinct and apart from the ordinary work of the association, and during their conduct it would have been a graceful act for Dr. Davis to have welcomed the president of that society, nor would it have diminished the renown that is so justly accorded to the "Father of the Association" had he displayed a magnanimity that was worthy his exalted position and the occasion. The address of Dr. George Ben Johnston¹, of Richmond, on behalf of the state medical societies is a paper that will bear careful reading, and it furnished a bright coloring to a dark foreground. It was masterful in conception, in length and in material. The National Confederation of State Medical Examining Boards as an organisation was also ignored at these exercises, although the individual boards were invited to participate. Unfortunately, however, they were not heard from on the stage, as the speaker selected by the jubilee committee departed for his home the previous evening.

The social entertainments were of the highest order. It would be difficult to bestow unmerited praise on this part of the program.

1. Published in full on page 933.

Whether in the way of public receptions, luncheons, lawn and theatre parties, or private dinners and entertainments, the whole series was managed with rare discretion. It was no ordinary task to adequately provide for such a number, and Dr. Hare with his lieutenant Dr. de Schweinitz, chairman of the sub-committee on entertainment, conducted these functions in a manner beyond criticism.

The hospitalities of the clubs—the Art, the Union League, the United Service, and others,—were of an exceptional order. The entree was given by card to many of the visitors where luncheons, dinners and many home comforts were enjoyed. There were numerous private luncheons and dinners given by Philadelphians that were of the most enjoyable nature, and these after all furnished the best opportunity for agreeable acquaintanceship with the charming men and women who people the Quaker City. It was hard to keep pace with the rapidity of movement incident to all this round of pleasure, and before the end of a week many of the visitors found it convenient to seek the quietude of Greater New York for rest and recuperation.

We must not omit to mention the many clinics that were thrown open to invited guests where operations of all sorts were witnessed under the most extreme conditions of sanitation and asepsis. The new operating amphitheatre of the Medico-Chirurgical college and hospital afforded an object lesson in showing what money can do when lavishly expended in perfecting and developing surgical asepsis in operative environment. The new clinic room of the old Pennsylvania hospital is a model of aseptic neatness, convenience and perfection, that attracted many visitors who gave unstinted praise to the old institution.

Finally, the excursion to Atlantic City on Friday was participated in by nearly 1,000 excursionists, who were entertained without expense until Saturday night. This afforded an opportunity for those who desired to visit the ocean and even take a dip in the waves, to do so under the pleasantest auspices, and was a generous ending to a week of lavish hospitality. Philadelphia's fame as a host did not suffer at the hands of the committee of arrangements of the jubilee meeting of the American Medical Association.

NOTES AND ECHOES.

THE usual number of amendments to the constitution and by-laws were offered and as usual they were all voted down. It would

appear that this association does not care to have any new fashions introduced into its government. The old-time way is good enough for it.

DR. JOHN H. MUSSER, of Philadelphia, was appointed to deliver the address on Medicine next year; Dr. John B. Murphy, of Chicago, the address on Surgery, and Dr. S. C. Busey, of Washington, that on State Medicine. It is needless to add that these are all excellent selections.

THE Association of American Medical Colleges held two or three sessions under the presidency of Dr. J. M. Bodine, of Louisville. We are not advised as to the nature of its transactions, but it showed great discretion in electing Dr. J. W. Holland, dean of Jefferson, as its president for the ensuing year.

THE president, Dr. Senn, appointed Dr. Henry D. Holton, of Brattleboro, Vt., as official delegate to the British Medical Association at Montreal, August 31–September 3, 1897. No more appropriate selection could have been made. Dr. Holton, though one of the older members is one of the more liberal and progressive ones, and will represent the association in its truest sense.

COMMODORE ALBERT L. GIBON, Medical Director U. S. Navy (retired) Chairman of the Rush Monument Committee, received substantial encouragement that his labors, so zealously and almost thanklessly given for so many years, are at last to be crowned with success. At least such will be the case if the contributions promised on the first day by the several states should materialise.

THE American Medical Editors Association held its annual meeting and banquet at the Hotel Aldine, Tuesday evening, June 1st. While the meeting was an enjoyable one, rendered especially so by the efforts of the president and Dr. Daland, chairman of committee of arrangements, yet experience shows that Monday evening before the meeting of the great association would be a better date for the editors, and it was so agreed for the future. Dr. Hare was reelected president—a fit action.

THE election resulted in the choice of the following-named officers: President, Brigadier-General George M. Sternberg, M. D., Surgeon-General U. S. Army; vice-presidents, Drs. Joseph M. Mathews, Kentucky, J. L. Thompson, Indiana, F. H. Wiggin, New York, and T. J. Happel, Tennessee; treasurer, Dr. H. P. Newman, Illinois, and secretary, Dr. Wm. B. Atkinson, Pennsylvania. The selection of president is an admirable one. Dr. Sternberg by education,

training, position and scientific attainments is every way worthy of the succession. Dr. Mathews, first vice-president, is also a man of conspicuous prominence and every way worthy of his office. After a spirited contest Denver was selected as the next place of meeting.

THE American Academy of Medicine held a largely attended and most interesting meeting May 29th and 31st, at the Continental Hotel, Philadelphia. Its work in creating a public sentiment in favor of higher and better medical education is well known and deserves the highest commendation. Considerable progress was made in the direction named during this meeting. Dr. L. Duncan Bulkley, of New York, was elected president for the ensuing year. Dr. Bulkley was vice-president of the Medical Society of the State of New York, 1896-97, and is now also secretary of the executive committee of the American Medical Association.

THE financial budget of the association presented an incongruous monetary problem. The balance at last statement was \$9,075.74. The balance now is \$5,465.56, showing a loss for the year of \$3,610.18. Another curious fact is that the salary of the secretary is \$300.00 while the rent paid for the treasurer's office is also \$300.00. By a new rule the treasurer is to supervise the registration for which he is to be paid \$100.00. The trustees are paid for attendance upon meetings of the board all the way from \$119.50, the highest, down to \$42.50 the lowest. A new executive committee is created that will undoubtedly present bills for attendance upon the meeting next year.

DENVER, which secures the meeting next year, will find it difficult to follow Philadelphia in entertaining the association, and a year from now may be a wiser if not a better city. The *Western Medical Review* relates an amusing incident in the committee of nomination relating to the selection of the place of meeting, as follows:

The fight for place of holding the meeting next year was a lively one while it lasted. While several cities extended an invitation for the association to meet with them, only two went into the fight in earnest—namely, Denver and Columbus, Ohio. The former had an able champion in Dr. J. W. Graham, and the forces of Columbus were led by Dr. C. A. L. Reed. When the vote came to be counted it was seen that the quiet but hard work of Dr. Graham had secured the plum in the ratio of two to one. Columbus had a map, beautifully decorated with red lines running between Columbus and the important cities of the east, to show that Columbus was nearer the center of population. But the good effect

that might have resulted from this lesson in geography was demolished when a representative from the Denver delegation got up and quietly said: "Denver does not need a map to let people know where it is situated." The laugh and cheering that followed showed that the point was well received. General satisfaction was evident among the members of the association, as they expect an enjoyable time in Denver. It is to be hoped that the physicians of the west will aid the profession of Denver and Colorado in making the meeting next year a successful one, in point of numbers at least. Denver will attend to making it successful otherwise.

NATIONAL CONFEDERATION OF STATE MEDICAL EXAMINING AND LICENSING BOARDS.

THIS organisation held its seventh annual meeting at the Hotel Walton, Philadelphia, May 31, 1897. The meeting was called to order at 10 o'clock A. M., and remained in session until 6.40 P. M., excepting a short noon recess. The roll call showed twenty-five states and territories represented by official delegates, besides a large number of individual members. The University of the State of New York was represented officially in the person of one of its regents, the Hon. T. Guilford Smith, of Buffalo.

An address of welcome was made by Dr. A. H. Hulshizer, member of the Pennsylvania state board of medical examiners. He referred to the status of Pennsylvania concerning medical education, and especially dwelt upon the fact that Philadelphia is a medical center and a city full of professional and historic interest. His well-rounded periods were received with applause. The response was made by one of the vice-presidents, Dr. Charles A. L. Reed, of the Ohio state board of registration and examination. Dr. Reed's wonted eloquence and rhetoric were displayed to good advantage on this occasion, and the comprehensiveness with which he surveyed the field of medical educational reform, as well as his polite reference to Dr. Hulshizer's address, received the plaudits of the assemblage. Regent T. Guilford Smith, of the university of the state of New York, followed with a brief address, in which he manifested an interest and knowledge of questions relating to medical education that even surprised many of the doctors. He showed that the university which he represented was in touch with the sentiment of the age on these questions, and stood ready to meet any reasonable proposition having for its object the general wel-

fare. Regent Smith's remarks were well received and generously applauded.

The secretary and treasurer, Dr. A. Walter Suiter, of Herkimer, then read his report, which was referred to the executive council to be audited and to receive such other action as might be deemed essential. The president, Dr. William Warren Potter, of Buffalo, next delivered his address, which will be found published in full in another column, page 883. A recess was then taken until 2.30 o'clock.

When the confederation met in the afternoon, Dr. J. W. Holland, Dean of Jefferson Medical College, addressed the assemblage in a felicitous manner. He presented thoughts, from the standpoint of the teacher relating to state examinations, that evinced a growing interest among the colleges on the subject, and that put the speaker at once in touch and sympathy with the examiners. Dr. Holland's scholarly effort was accorded hearty cheers at its conclusion.

The acting chairman of the committee on minimum standards, Dr. N. R. Coleman, of Ohio, then presented the preliminary report of his committee. The underlying feature of this report was the recommendation that a high school course should be adopted as the minimum of the equipment of a student for entrance upon the study of medicine; but inasmuch as there is great variation in rules among the states as to what constitutes a high school course, Dr. Coleman submitted a curriculum which approaches the New York and Michigan high school standards. The consideration of this report developed a spirited debate, that was participated in by many prominent speakers from many different sections of the Union. Regent T. Guilford Smith, in the course of his remarks on the report, said that New York would undoubtedly be willing to meet other sections of the country on equitable grounds, and would make any reasonable concession that might lead to the universal establishment of a minimum standard of requirements suited to the present conditions existing in the several states. This sentiment met with hearty approval, and the confederation greeted it with applause. Dr. Coleman closed the debate in an able and spirited address, that demonstrated his familiarity with the subject. The report was then referred back to the committee, which was continued and directed to report next year.

Dr. William S. Foster, of Pittsburg, secretary of the Pennsylvania state medical examining board, presented a paper entitled,

Practical experience with, and results of, the medical law of Pennsylvania; and Dr. W. H. Sanders, of Montgomery, Ala., followed with a paper entitled, *The Alabama system*. These interesting papers were then discussed by several members who accentuated the salient features of the essays. Dr. Charles K. Cole, of Helena, Montana, sent a paper entitled, *Remarks on medical practice laws in the new Northwest*, that was read by title and ordered printed in the proceedings. Dr. Cole's absence was very much regretted, as his experience has been large and his counsel is valuable.

The election of officers then took place, with the following result: president, William Warren Potter, Buffalo; vice-presidents, E. L. B. Godfrey, Camden, N. J., and William Bailey, Louisville, Ky.; secretary and treasurer, A. Walter Suiter, Herkimer, N. Y. The executive council and the committee on minimum standard of requirements were continued and the president directed to fill vacancies.

The meeting room was a most excellent one and was supplied through the courtesy of Mr. I. D. Crawford, manager of the Hotel Walton. A resolution thanking Mr. Crawford for this and many other pleasant attentions to the Confederation was passed, some other miscellaneous business transacted, and at 6.40 P. M. the Confederation adjourned, after having spent a busy and profitable day, in which much progress was made in the direction of unifying, methodising and standardising the work of the state boards of medical examiners throughout the United States.

DR. GEORGE BEN JOHNSTON, of Richmond, president of the Medical Society of Virginia, was chosen by the committee on jubilee exercises to speak for the state medical societies. He delivered a brief and telling address in the following words:

WHAT THE STATE MEDICAL SOCIETIES HAVE DONE.

The enactment of such laws as now exist was, it is fair to claim, procured through the efforts of the state societies acting independently of each other. There was never any well-directed attempt at coöperation, hence the dissimilar character of the various statutes and the varying nature of the prescribed machinery for executing them. Yet in every case the object was the same—to furnish the people with only properly equipped practitioners. This called into existence many state examining boards, whose function was to select qualified men. It was soon made apparent that even many of those holding diplomas were not qualified. Careless and inferior schools saw their graduates excluded from the privileges of practice and their classes diminished, because

young men contemplating the study of medicine began to choose their schools with discrimination, having in view the purpose of properly fitting themselves to meet the requirements of the examining boards. The effect of all this was to elevate the standard of medical education. New subjects were added to the college curriculums, practical work was required, the time of study lengthened, and more rigid examinations exacted.

It became obvious that these legislative measures to secure higher medical education usually styled Laws regulating the practice of medicine and surgery—they would be more accurately described as Laws for the protection of the people—had taken root and had come to stay. National bodies have taken them up and are rapidly centralising the work accomplished in a desultory but partially effective way by the state societies. On Monday of this week we witnessed in this city the seventh annual meeting of the National Confederation of State Medical Examining and Licensing Boards. This association is the legitimate and natural outgrowth of the efforts of the individual societies which have for so many years patiently but unconsciously worked for its formation and development. Although as yet it is scarcely more than embryonic, its function is well defined, and it must become the leader in further efforts to secure appropriate and uniform laws regulating the practice of medicine, and state societies ought to earnestly coöperate with it in order that it may be strengthened and its usefulness increased. But the results obtained in another department of legislation are not less striking.

In most of the states in which state boards of health have been established, these bodies have been brought into existence through the suggestion and instrumentality of the state medical societies. These boards have been of inestimable value to the public in the way of promulgating the laws of hygiene, in the prevention of epidemics, the suppression of those already existing, and the conduct of commerce in times of public fear.

If then, as I believe, the state societies were the main instruments in calling into existence the State boards of medical examiners and licensers, and the state and other boards of health, may we not justly claim for them the title of public benefactors? They fallowed the field and sowed the seed; the community is reaping the harvest. And how are their labors made manifest?

By the improvement in the material from which medical men are formed. By the better preliminary education of medical students.

By the higher technical education of doctors.

By the binding together of the best medical colleges in a league, the sole object of which is to elevate the standard of medical education.

By the enactment of laws which admit only properly equipped men to enter the practice of medicine.

By the rapid disappearance of the pretender and the ignorant quack.

By the presence in every village or hamlet of a medical man whose character and attainments entitle him to rank with the best of his community; whose professional acumen and honesty fit him to discharge the duties of his high calling with confidence, skill and success, and whose trained faculties constitute him the guardian of the public health.

All these beneficent results may be traced to the working of your state societies.

Obituary.

DR. WILLIAM THOMPSON LUSK, president of the Bellevue Hospital Medical College and professor of obstetrics and gynecology in that institution, died suddenly at his home, No. 47 East Thirty-fourth street, in the city of New York, Saturday afternoon, June 12, 1897, of cerebral apoplexy. He was apparently in his usual health in the morning and the suddenness of his death shocked a whole community.

Dr. Lusk was born at Norwich, Conn., in 1838. His father was a descendant of an old Norwich family. William T. Lusk was in the class of '59 at Yale, but left the college after a year. In 1864 he was graduated from the Bellevue Hospital Medical College. Soon after he had received his degree he went to Europe, and continued the study of medicine at Heidelberg, Berlin, Edinburgh, Paris, Vienna and Prague. On returning to this country in 1868 he became professor of physiology in the Long Island College, where he remained until 1871. In 1870 and the following year he gave lectures on physiology at Harvard.

Dr. Lusk was also the visiting physician of the Nursery and Children's Hospital in 1870 and 1871, and visiting physician to the Charity Hospital in the same years, consulting physician to the Maternity Hospital, to the New York Foundling Asylum and to the New York Lying-In Hospital. He was also the visiting gynecologist to St. Vincent's Hospital. In 1871 he was editor of the *New York Medical Journal*. In 1875 he was the vice-president of the New York Obstetrical Society, and later its president. He has also been president of the American Gynecological Society.

At the beginning of the Civil War, Dr. Lusk joined a New York volunteer regiment as a private soldier. For meritorious perform-

ance in the discharge of his duties he was made second lieutenant, and later was promoted to be captain and assistant adjutant-general. He was a companion of the Military Order of the Loyal Legion.

In 1872 he received the honorary degree of A. M. from Yale, and later the honorary degree of LL.D. from the same institution.

His principal work was the *Science and Art of Midwifery*, which has been translated into many languages. He was also the author of the following monographs: *Histological doctrines of M. Robin*; *Uremia a common cause of death in uterine cancer*; *Irregular uterine action during labor*; *Inquiry into the pathology of uterine cancer*; *Clinical report of the lying-in service at Bellevue Hospital for 1873*; *Origin of diabetes, with some new experiments regarding the glycogenic function of the liver*; *Cephalotribes and Cephalotripsy*; *Genesis of an epidemic of puerperal fever*; *Morphia in childbirth*; *Nature, causes and prevention of puerperal fever*. These and many others bespeak his literary accomplishments.

Dr. Lusk was a forceful teacher, with few equals and no superior at least in the United States; and he had achieved a renown in his special field of study that extended to all quarters of the globe. Personally he was one of the most delightful of men, possessed of an attractive, clear, musical voice, and a modest, charming, fascination of manner that gave him a strong hold upon the social, professional and public sides of life. He died at the zenith of a fame that was deservedly won by one of the most gifted members of the medical profession that has risen from obscurity to renown in the last half of the nineteenth century.

Dr. Lusk was married twice and leaves two sons and three daughters. The Hon. S. V. Chittenden, of Brooklyn, father of his first wife, erected to her memory a beautiful building at Yale University. His eldest son, Graham Lusk, is professor of physiology at Yale University, while the younger, Dr. Wm. Chittenden Lusk, is chief of the surgical clinic at Bellevue Hospital Medical College.

DR. J. LEWIS SMITH died at his residence in New York, June 9, 1897, aged 69 years. He was born at Spafford, N. Y., October 15, 1827; graduated at Yale in 1849; studied medicine with Drs. Caleb Green and Frederick Hyde; attended at Buffalo Medical College in 1851 and 1852, and graduated from the College of Physicians and Surgeons in 1853. Dr. Smith was one of the first in this country to pursue the special study of diseases of children, in which depart-

ment he became an acknowledged authority. In 1869 he published a treatise on the subject, the first to appear in America, which has since passed through many editions and which has been adopted as a text-book in the majority of medical schools in the United States.

Dr. Smith has been an industrious writer, contributing constantly to the periodical medical literature—annuals, journals and systems of medicine. For many years he was professor of diseases of children at Bellevue Hospital Medical College; attending physician to Charity Hospital, the New York Foundling Asylum, and the New York Infant Asylum; and consulting physician to the department for diseases of children at the Bellevue Bureau for relief of out-door poor. He was a brother of Dr. Stephen Smith, the eminent surgeon. Though he has not been in robust health for some years he was still able to practise his profession until quite recently. Several years ago he was prostrated by a severe shock from a runaway accident and a few weeks ago he met with a cable car accident which confined him to his bed. Death finally resulted from cardiac exhaustion.

MR. JAMES GREIG SMITH died at his residence at Bristol, England, Friday morning, May 28, 1897, of pneumonia, aged 43 years. The shock to the professional world has seldom been so great as when it received the news of the death of this brilliant young man. He attended a consultation at Wiltshire on Monday, May 24th, and dined at a friend's house at Clifton on the evening of the same day. He then complained of feeling ill, attributing it to rheumatism, from which he almost constantly suffered. The next morning, however, symptoms of pneumonia appeared, yet no great anxiety was felt for his condition until Thursday. He then began to fail and in spite of the unremitting care of his friends Drs. Shaw and Swain, who were in constant attendance, he expired on Friday morning at 8.15. The obsequies occurred on Tuesday, June 1st, at Redland Green, which were attended by a large number of his professional brethren and friends in testimony of their respect to his memory. He was married about fifteen years ago and is survived by a widow and daughter.

James Greig Smith was born near Aberdeen in 1854, was sent to a grammar school of that city at an early age, proceeding thence to the university from which he took his degree in arts in 1873 with high honor. He took the Bachelorship of Medicine and Mastership of Surgery in 1876, in which year he was elected to

the post of junior house surgeon at the Bristol Royal Infirmary, continuing his connection with that institution until his death. In 1879 he became surgeon on the staff of the infirmary and there began a surgical career that made him famous all over the world. In 1888 he began to lecture on surgery at the medical school and soon afterward published his well-known treatise on abdominal surgery, which is now going through a sixth edition and has been translated into French, German and Italian. As a writer he was clear, forceful and lucid, and as a teacher these qualities together with a perfect mastery of his subject made him the most famous of the younger exponents of abdominal surgery.

In 1894, Mr. Greig Smith delivered the address on surgery before the British Medical Association at Bristol, taking for his subject the Art of the Surgeon. This oration attained conspicuous prominence as a scholarly paper, rarely equaled in material, originality or rhetoric. It has been more quoted on both sides of the Atlantic than any similar address.

It is difficult in the brief space of a magazine obituary notice to do justice to the fame of such a man; but we may be justified in predicting that in the future wherever medicine and surgery are known and taught there will be no more conspicuous exemplar of the art, whose memory will be kept alive in amphitheatre, magazine and volume than James Greig Smith.

DR. SAMUEL POTTER, of Lancaster, died at his residence in that village Saturday, June 12, 1897, aged 83 years. He had been a resident of Erie County for over fifty years, during the larger portion of which time he had been engaged in the practice of his profession, from which, however, he retired a few years ago. He was a public-spirited citizen and a man of great popularity. Two daughters survive him, Mrs. F. E. Furman, of Rochester, and Mrs. Lewis Eaton, Jr., of Lancaster.

Personal.

DR. N. R. COLEMAN, of Columbus, O., after a continuous service of about eighteen years as an instructor in medical colleges, has retired, at least temporarily, from college work. For a number of years he was Professor of Physical Diagnosis, and for one year Professor

of Diseases of Women and Children in Columbus Medical College. From the founding of the Ohio Medical University he has filled the chair of theory and practice of medicine and clinical medicine, with acceptance and distinguished ability. His untiring efforts in behalf of medical legislation, his arduous duties as president of the State Board of Medical Registration and Examination, added to those of his professorship in the university, and membership on the Board of Examining Surgeons for Pensions, and with the care of a large general practice, have been for some time a great strain upon his health, and have made curtailment of professional work a necessity. The friends of medical education will regret that curtailment of work should not have been made in some other direction. Dr. Coleman has rendered the profession at large signal service in the efficient discharge of professional and public duties, and he retires from the faculty of Ohio medical university with the good will and best wishes of all his colleagues in that institution.

We trust that his health may long be spared and that he and his associates on the state board may carry forward the good work which they have so well begun of elevating the medical practice and the educational requirements of the medical colleges of the state.—*Columbus Med. Jour.*

DR. HENRY D. DIDAMA, of Syracuse, having reached the fiftieth year of his medical practice, was given a dinner in commemoration of the event by the faculty and the alumni association of the college of medicine, Syracuse University, Wednesday evening, June 9, 1897. Dr. Nathan Jacobson presided as toastmaster and among the speakers announced were Dr. Albert Vander Veer, of Albany, whose subject was His Alma Mater; Dr. Matthew D. Mann, of Buffalo, subject, Medical education, and Dr. William S. Ely, of Rochester, whose subject was The state board of medical examiners.

DR. FREDERICK C. PETERSON, junior house surgeon at the Fitch Accident Hospital, has been appointed interne at the lying-in department of the New York Foundling Hospital. Dr. Peterson is an alumnus of the University of Buffalo, class of '96. His home is at Watertown.

DR. JOHN B. HAMILTON, editor of the *Journal of the American Medical Association*, late surgeon of the Marine Hospital Service,

has been elected superintendent of the Illinois Northern Hospital for the Insane at Elgin.

DR. MILO B. WARD, of Topeka, Kan., has decided to locate in Kansas City, Mo., and will occupy offices in the Rialto. Dr. Ward has long occupied an enviable position as gynecologist and abdominal surgeon in Kansas. He will take high rank in Kansas City from the first. We welcome the doctor to *the* medical center of the West.—*Langsdale's Lancet*.

DR. HENRY OSTHUES, late of 1266 Jefferson street, Buffalo, has removed to 769 Quincy street, Brooklyn, N. Y. Dr. Osthues was formerly demonstrator of anatomy in the medical department Niagara University and secretary of the alumni association. His many friends in Buffalo will be glad to learn of his successful beginning in his new location.

DR. W. A. ADAMS, of Fort Worth, Texas, chief surgeon of the Fort Worth and Denver City railway company, has lately been the recipient of the degree of LL. D. from Mercer University. The compliment is a well-bestowed honor and Mercer University will not suffer thereby.

Society Meetings.

THE American Association of Obstetricians and Gynecologists will hold its tenth annual meeting at the Cataract House, Niagara Falls, Tuesday, Wednesday, Thursday and Friday, August 17, 18, 19 and 20, 1897, under the presidency of Dr. James F. W. Ross, of Toronto. The railways have granted reduced fares on the certificate plan to all who attend the meeting; the Cataract House has made a reduction from its regular tariff of charges; the place of meeting is a famous one; the season of the year auspicious, and everything seems to conspire to justify a prediction that this will be a large and interesting meeting of this famous association.

The date of the meeting has been fixed in mid-August, apart from college sessions, during the vacation season, and at a place where many people like to spend a portion of their outing. The climate of Niagara is always desirable during the heated term, the

spray from the cataract giving it a healthy moisture and coolness that is at once invigorating and charming. To visit Niagara under the auspices of this association will afford the tourists exceptional opportunities for the enjoyment of a rare and radiant scenery that is the most sublime in the world. One session will be devoted to the exhibition of specimens and giving their histories.

The scientific work of the association will begin on Tuesday morning at 10 o'clock and end Friday at 1 o'clock, and it is expected to so arrange the program as to afford the members opportunity to visit the places of interest each day on the adjournment of the afternoon session. It is expected that the inducements to attend this meeting are such that Fellows will not only come themselves, but bring their families and invite their friends as well to visit the wondrous cataract.

THE Buffalo Academy of Medicine held meetings during the month of June as follows :

Annual Meeting of the Academy.—Tuesday evening, June 8th.

Program : annual address of the president, Dr. Herman Mynter, Prognosis of appendicitis.

Section on Pathology.—Tuesday evening, June 15th. Program : Some deformities of the chest in the light of its ancestry and development, by Dr. Woods Hutchinson ; exhibition of gall-stones, by Dr. A. L. Benedict ; exhibition of specimens, by Dr. C. C. Frederick.

Section on Obstetrics and Gynecology.—Tuesday evening, June 22d. Program : Puerperal septicemia, by Dr. L. G. Hanley ; Nature of dysmenorrhea, by Dr. M. D. Mann.

THE Ohio State Medical Society held its annual meeting at Cleveland, May 19, 20 and 21, 1897. The meeting next year will be held at Columbus on a date to be fixed hereafter. The election of officers resulted as follows : president, Dr. William H. Humiston, of Cleveland ; vice-presidents, T. Clark Miller, M. D., Massillon ; Geo. Mitchell, M. D., Mansfield ; E. H. Hyatt, M. D., Delaware ; D. H. Brinkerhoff, M. D., Fremont ; secretary, John A. Thompson, M. D., Cincinnati ; assistant-secretary, H. M. W. Moore, M. D., Columbus ; treasurer, James A. Duncan, M. D., Toledo ; Editor, R. Harvey Reed, M. D., Columbus.

THE Association of Military Surgeons of the United States held a most successful meeting at Columbus, O., May 25, 26 and 27, 1897, under the presidency of Commodore Albert L. Gibon, M. D., Medical Director United States Navy (retired). The election of officers resulted as follows: President, Brigadier-General (retired) Jefferson D. Griffith, Surgeon-General N. G. Mo., Kansas City, Mo.; first vice-president, Major John Van Rensselaer Hoff, Surgeon United States Army, Washington, D. C.; second vice-president, Commander John C. Wise, Medical Inspector United States Navy, Washington, D. C.; secretary, Captain James E. Pilcher, Assistant Surgeon United States Army, Columbus; treasurer, Major James Jay Erwin, Assistant Surgeon-General Ohio National Guard, Cleveland. Kansas City, Mo., was chosen for the next place of meeting.

THE American Medical Publishers' Association held its fourth annual meeting at the Hanover, Philadelphia, Monday, May 31, under the presidency of Dr. Landon B. Edwards, of Richmond, editor of the *Virginia Medical Semi-monthly*. The president delivered his address, a number of papers were read and the usual business transacted. It is expected to meet next year at Denver.

Book Reviews.

PRINCIPLES OF THEORETICAL CHEMISTRY, with Special Reference to the Constitution of Chemical Compounds. By IRA REMSEN, M. D., Ph. D., Professor of Chemistry in the Johns Hopkins University, Baltimore. New (fifth) and thoroughly revised edition. In one royal 12mo volume of 328 pages. Philadelphia and New York: Lea Brothers & Company, Publishers. 1897.

A work so well known as this one hardly needs an introduction to the chemical public of America. The author says:

In preparing this new edition I have again been tempted to change the book fundamentally and give it a character more in keeping with the recent tendencies in the field of physical or general chemistry. But, taking everything into consideration, I have concluded to resist the temptation and remain true to the original title and character of the book. Accordingly it is essentially what it has been—a brief treatise on those facts and speculations that have to deal especially with the problem of the constitution of chemical compounds. My object has been and is to help students to get clear ideas in regard to the foundations of chemistry.

The work, therefore, is essentially what former editions have been, excepting that it has been brought down to the scientific advancements of the present day.

The main object in view in this book is to point out as clearly as possible the reasons for accepting the prevailing views in regard to constitution, to show that these views are not merely products of the imagination, but that they are the legitimate results of a profound and comprehensive study of chemical phenomena, and that they are the simplest views possible, if we accept as the basis of speculation the atomic theory.

This certainly has been accomplished, for there is no work in the English language upon the subject of theoretical chemistry which presents the subject so clearly and concisely as the one before us. "The phenomena of solution have long been the subject of study, but not until the last few years have results been reached of importance in connection with the problem of the determination of molecular weights." Chapter IV. is devoted to "a study of solutions," and gives a very clear idea of the relation between vapor pressure, freezing points and osmotic pressure of solution and the molecular weights of the dissolved substances.

In reference to argon and helium and their relation to the periodic law, the author says that we are not able to arrange them in the tables based upon the periodic law. "It should be borne in mind, however, that in consequence of their peculiar properties our knowledge of these substances is as yet very imperfect."

Some pages are devoted to a consideration of stereo-chemistry that is, "that branch of chemistry which has to deal with the phenomena of space relations." It is a very clear but condensed account of the hypotheses which have been presented upon this subject.

This work can be most heartily recommended to all students of chemistry. The typography and general make-up of the book are excellent.

J. A. M.

LIPPINCOTT'S MEDICAL DICTIONARY. A Complete Vocabulary of the Terms used in Medicine and the Allied Sciences. With their Pronunciation, Etymology and Signification, including much Collateral Information of a Descriptive and Encyclopedic Character. Prepared on the basis of Thomas's Complete Medical Dictionary. By RYLAND W. GREENE, A. B. With the editorial collaboration of John Ashurst, Jr., M. D., LL. D., Barton Professor of Surgery and Professor of Clinical Surgery in the University of Pennsylvania; George A. Piersol, M. D., Professor of Anatomy in the University of Pennsylvania and Joseph P. Remington, Ph. M., F. C. S., Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy. Philadelphia: J. B. Lippincott Company. 1897.

Though there has been a wealth of dictionaries issued of late there is always room for good ones near the top. The one before us takes rank with the good ones and as such will command the attention of the profession. One of the distinguished features of the book is its convenient size—a point of much importance. Another one is its plain letter-press. The words defined are printed in heavy-faced type and the definitions in long primer letter. Some of the definitions have been very much elaborated,

though through systematic abbreviation and condensation space has been economised without detracting from the usefulness of the book.

One of the most difficult problems connected with dictionary making is pronunciation, but in this work a comprehensive system has been adopted that is at once intelligible and in accord with the most modern philology. We are at a loss, however, to understand why in this day and age a modern dictionary issued by modern men should cling to the old-fashioned diphthongs that are fast becoming obsolete. The contrast between this book and Gould's, which is one of the best, is in this respect remarkable. It is a great pity that medical philologists cannot agree in convention upon a uniform practice in regard to spelling and pronunciation.

In spite of this and some minor defects we end as we began by commending the volume as entitled to a place in the front rank.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology and Dermatology, and specially prepared articles on treatment. By professors and lecturers in the leading medical colleges of the United States, Germany, Austria, France, Great Britain and Canada. Edited by JUDSON DALAND, M. D., (Univ. of Penna.) Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania; Assistant Physician to the Hospital of the University of Pennsylvania, etc.; Fellow of the College of Physicians of Philadelphia. J. MITCHELL BRUCE, M. D., F. R. C. P., London, England, Physician to, and Lecturer on, the Principles and Practice of Medicine at the Charing Cross Hospital. DAVID W. FINLAY, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary, etc. Volume I. Seventh series. April, 1897. Octavo, pp. xii.—344. Philadelphia: J. B. Lippincott Co. 1897.

This volume is contributed to by a number of distinguished men in America and Europe. There are fifteen lectures on treatment, ranging from appendicitis to pneumonia; five articles on medicine; six lectures on neurology; ten contributions on surgery; four on obstetrics and gynecology; one lecture in the department of ophthalmology; three in that of laryngology, pharyngology, rhinology and otology; and two lectures on the topic of dermatology. It will thus be observed that the range of the volume is wide and its teaching comprehensive in character. One of the advantages this series of clinics possesses is originality. Each lecturer turns on the light from his own personal standpoint and so makes his subject interesting even if incomplete. In order to make the series valuable for a reference library it should be unbroken; hence the publishers should be careful to avoid any breaks in transmitting it to those journals they have selected as recipients of the clinic.

BOOKS RECEIVED.

New Volume of Hare's System of Practical Therapeutics. A System of Practical Therapeutics. By Eminent Authors. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Volume IV. Octavo, 1,065 pages, with illustrations. Regular price, cloth, \$6; leather, \$7; half Russia, \$8. Price of Volume IV. to subscribers to the System, cloth, \$5; leather, \$6; half Russia, \$7. Price of the System complete in four volumes of about 4,500 pages, with about 550 engravings, cloth, \$20; leather, \$24; half Russia, \$28. Philadelphia and New York: Lea Brothers & Co., Publishers. 1897.

Medical and Surgical Report of the Presbyterian Hospital in the City of New York. Volume II. January, 1897. Edited by Andrew J. McCosh, M. D., and Walter B. James, M. D. New York. 1897.

Reports of Inspections of National, State and Local Quarantine Stations. From annual report Marine Hospital Service. Washington: Government Printing Office. 1897.

The Disorders of Digestion in Infancy and Childhood. By W. Soltan Fenwick, M. D., B. S., London, Member of the Royal College of Physicians, etc. Illustrated. Philadelphia: J. B. Lippincott Company. 1897.

The Medical Directory of the City of New York. Published under the auspices of the Medical Society of the County of New York. Daniel Lewis, M. D., Editor. Price, \$1. New York: Press of Le Huray & Co., 14 Reade street. 1897.

Hysteria and Certain Allied Conditions. Their Nature and Treatment, with Special Reference to the Application of the Rest Cure, Massage, Electrotherapy, Hypnotism, etc. By George J. Preston, M. D., Professor of Diseases of the Nervous System, College of Physicians and Surgeons, Baltimore; Visiting Physician to the City Hospital, etc., etc. Small 8vo, pp. 298. Illustrated. Price, \$2. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1897.

Literary Notes.

ADDENDUM.—Mr. Lawson Tait sends the following foot-note to his article published in the June edition of this journal, page 805, second line from the bottom, placing an asterisk after the word “cysts”:

“Dr. Howard Kelly, of Baltimore, has lately stumbled on this fact and has published it as a great discovery. It has been indicated at length in everything I have written on the subject for a quarter of a century. The professor at Johns Hopkins University is, as usual, a long way behind the times.”

L. T.

THE American Journal of Insanity, heretofore published at 34 Washington street, Chicago, will be transferred to Baltimore, July 1, 1897, and will be published by the Johns Hopkins Press. The editorial control will be in the hands of a committee of the American Medico-Psychological Association, consisting of Dr. Henry M. Hurd and Dr. E. N. Brush, of Baltimore; Dr. G. Alder Blumer, of Utica, N. Y., and Dr. J. Montgomery Mosher, of Albany, N. Y.

All communications for the Journal should be addressed to Dr. Henry M. Hurd, care of the Johns Hopkins Hospital, Baltimore, or to any of the editors. All exchanges and business communications should be addressed to the Johns Hopkins Press, Baltimore.

Greater Buffalo is the name of a monthly magazine devoted to promoting the prosperity of the power city of America, lately established at Buffalo. The first number is a well-printed and handsomely illustrated paper that promises a successful career. It is published by the Greater Buffalo Publishing Company from its office, 720 Real Estate Exchange.

MESSRS. E. B. Treat & Company have removed from 5 Cooper Union to 241-243 West Twenty-third street, New York. William H. and Edwin C. Treat, sons of E. B. Treat, who have been associated with the father in business for several years, have been admitted to partnership under the above firm name.

Item.

THE dispensary abuse has received investigation at the hands of the Medical Society of the County of New York, which, in October last, appointed the following committee on the subject: J. H. Burtenshaw, chairman, A. B. Ball, Hermann J. Boldt, E. S. Bullock, Henry D. Chapin, Carter S. Cole, Alexander Hadden, William M. Polk, W. Washburn, W. H. Weston and F. H. Wiggin. The result of its deliberations was a carefully prepared bill, tending to correct the evils, and which passed both houses of the last legislature without opposition. It failed, however, to receive the governor's approval, hence the work must be done over again. It is only a matter of delay, not of defeat.

INDEX TO VOLUME XXXVI.

	PAGE.
A BDOMEN, Contusions of	302
Abdominal Surgeons' Opera- tions, Cleanliness in	483
Section vs. the Vaginal Route in Periuterine Septic Diseases	743
Acetonuria	36
Acromegaly, Pathological Study of .	605
Advertising Tramp, Conviction of .	159
Albumin, Simple Test for	350
Albuminuria	596
in Pregnant Women	353
American Public Health Associa- tion, History of the Preparation for the Buffalo Meeting	105
Public Health Associa- tion, Effects of	226
Medical Association, Notes and Echoes of the Jubilee Meeting	928
Anchylostamum Duodenale	573
Anesthesia in Surgery, History of .	241
Semicentennial Anni- versary at Massachu- setts General Hospi- tal	315
Gilbert Abbott and	316
Anesthetic, Local	852
Angell, E. B., Sciatica a Neuritis, Rarely a Neuralgia	410
Antitoxin in Private Practice	119
Note on the Use of	125
Antivivisectionists, Campaign of .	536
Appendicitis, Nonoperative Treat- ment in	684
Fulminating	684
Arecolin, Physiological Action of .	365
Argonin in Gonorrhea	351
Astasia-Abasia, Cases of	856
Asthenopia, Rational Treatment of .	580
Astigmatism, Operative Treatment of	30
Astrologists and Fortune Tellers Taxed at Cleveland	160
Ataxia, Two Cases of Friedrich's .	568
Atropine in Tinnitus Aurium of Quinine	850

	PAGE.
B ACK to Nature	323
Bartlett, Frederick W., In Memory of	679
Barton, Clara	377
Basedow's Disease Surgically Treated	604
Benzosol, Clinical Applications of .	308
Bicycling and Breathing	339
a Danger of	601
Bills, Mischievous at Albany	615
Blood, Oxidising Power of	36
Books Received	76, 156, 237, 321, 397, 479, 559, 636, 721, 796, 882, 945
Brain Syphilis, Anatomical Consid- eration of	643
Breast Replaced by Lipoma	773
Burns, Treatment of	303

C ALCULUS, Diagnosis of by the New Photography	348
Camphoric Acid in Night Sweats .	853
Carpenter, Thomas B., Casts of Uriniferous Tubules	1
Castration for Prostatic Hyper- trophy	350
Cataract Extraction	360
Cervix, Lacerations of	768
Cesarean Section	773
Chancre, Extra-genital	671
Chautauqua County Notes	385, 877
Cheesman, Wm. S., Back to Nature .	323
Children, Employment of in Offices .	375
Christian Science Fad	61
and Schlatterism	376
Another Set-Back for	460
A Knock-out of	613
Ciliary Body, Steel Located in by Röntgen Rays	766
Clark, Horace, Reflex Effects of Intranasal Disease in the Pharynx and Mouth	415
Ailments of Voice Users	920
Clarke, Gardner Carpenter, Mem- orial of	873
Clemesha, J. C., Note on Eucaïne .	182
Acute Pleural Effusion in Children	331

	PAGE.
Clemesha, Eucaïne "B" etc . . .	845
Cocaine, Ordinance against . . .	850
Cod-liver Oil, Substitute for . . .	601
Consumption, Control of . . .	535
Deaths from . . .	781
Continued Fever, not Typhoid . . .	450
Convalescent Dinner Society . . .	130

Correspondence:

Comments on Dr. Rider's Paper, D. B. St. John Roosa . . .	692
Double Uterus and Vagina, Frank A. Jones . . .	530
Letter from William Wood & Co . . .	696, 775
Monopolistic Control of Medi- cal Literature, George M. Gould . . .	694, 774
Mr. Rafter and Lake Erie Water Supply, W. G. Bissell . . .	307
Tuberculosis Conveyed by Milk, J. M. O'Neill . . .	607
Crockett, M. A., Case of Uterine Myoma . . .	511
Etiology and Pathology of Uterine Displacements . . .	667
Cumston, Charles Greene, Pathol- ogy of Congenital Hydrocele . . .	907

DAGENAIS, A., Note on the Use of Antitoxin . . .	125
Alphonse, In Mem- ory of . . .	675
Damages, Prosecution for in Ab- dominal Surgery . . .	160
Death-rate at Buffalo . . .	313
Dental Department, U. of B., Dedi- cation of New Building . . .	373
Diabetes, Oxygen in . . .	529
Forms of . . .	606
Diarrhea, Simple . . .	126
Summer in Infants . . .	600
Diehl, Alfred E., Extra-genital Chancre . . .	671
Diphtheria of the Naso-pharynx . . .	438
Antitoxin Treatment of in Buffalo . . .	723
Diphtheritic Paralysis . . .	219
Dispensary, Abuse of the . . .	925
and Hospital Abuse at Washington . . .	456
Dowd, J. Henry, Inflammatory Dis- ease of the Prostate, etc . . .	491
Drug Company, New at Buffalo . . .	160
Dunham, Sidney A., Involuntary Intoxication from a Medico-legal Standpoint . . .	99

	PAGE.
EAR, Objective Noise in . . .	181
Earache, Its Significance and Management . . .	727
Echinococcus Cysts, Case of Mul- tiple . . .	25
Ehrlich's Diazo Reaction . . .	37
Elsner, S. L., Points in After-treat- ment of Surgical Cases . . .	836
Enteroptosis, Some Aspects of . . .	895
Enuresis . . .	40
Ephedrene as a Mydriatic . . .	54
Epilepsy, Operative Treatment of . . .	304
Epileptic Patients, Colonies for . . .	608
Epiphysitis, Acute Nontubercular	
Ether Anesthesia, History and Semcentennial Anniver- sary . . .	266
Administration of to Infants . . .	436
Ethics in Our Colleges . . .	538
Eucaïne . . .	764
Note on . . .	182
in Ophthalmic Practice . . .	363
Local Anesthesia by . . .	595
"B." . . .	845
in Infants . . .	161
Examinations, Entrance . . .	445
Examining Board, Report of New York State . . .	588
Pennsylvania State . . .	593
Experts, Medical and Expert Tes- timony . . .	403
Eye Specimens, Preparation of . . .	51

FECAL Fistula, Treatment of . . .	530
Feces, Clinical Importance of an Examination of . . .	89
Ferripyrine . . .	768
Fever, an Epidemic of Glandular . . .	602
Fibrin, Digestion of . . .	36
Flies, How to Drive Away . . .	158
Formalin in Genito-urinary Dis- eases . . .	349
Formic Aldehyde in Ophthalmic Practice . . .	55
Formulae . . .	852
Frick Library, Opening of at Balti- more . . .	457
Frye, Maud J., Woman's Place in Medicine . . .	868

GALL-STONE, Cases of . . .	855
Gastrostomy for Stricture of the Esophagus . . .	81
Goitre, Thyroidectomy for Relief of Exophthalmic . . .	606
Gonococcus Pyemia . . .	597

	PAGE.
Gonorrhea in Women	356
Argonin in	691
Gross Statue, Unveiling of	534

H AUENSTEIN, John, Résumé of Fifty Years' Obstetric Practice	810
Heartstrain	306
Hemorrhages, Degenerations Fol- lowing Focal	604
Herpes Facialis	651
Hiccough, Paroxysms of	849
Himmelsbach, G. A., Pregnancy Following Imperfect Coitus . . .	347
Hinkel, F. Whitehill, Earache, Its Significance and Early Manage- ment	727
Holocain, A New Local Anesthetic.	763
Hubbell, A. A., Measures to Pre- vent Ophthalmia Neon- atorum	426
Should Opticians Practise Medicine?	741
Hurd, Arthur W., Prevention and Early Treatment of Mental Dis- ease	168
Hydramnios and its Complications.	767
Hydrocele, Pathology of Congeni- tal	907
Hysterectomy in Inflammatory Dis- eases	767
Hysteria	504

I DAHO, Medical Law of	862
Ileus, Dynamic	293
Illinois State Board of Health, Resolutions of	859

Illustrations:

Alphonse Dagenais, M. D.	709
American Public Health Asso- ciation (Potter), Hotel Ni- agara	107
Alfred A. Woodhull	115
Buffalo Library	111
Eduardo Licéaga	114
Ellicott Square	109
Henry D. Holton	118
Henry Sewall	116
Irving A. Watson	117
View on Delaware Avenue	113
Anesthesia in Surgery (Park), Wm. T. G. Morton, Facing . . .	241
Bath House, Hot Springs, Va. . .	312
Chairman of Committees Amer- ican Public Health Associa- tion, Facing	222

	PAGE.
Clara Barton	377
Ernest Wende, Health Com- missioner	454
Ernest Wende, Portrait of, Fac- ing	222
First Demonstration of Etheri- sation	253
Friedreich's Ataxia (Stephen- son) 4 figures	571
Gardner Carpenter Clarke, M. D.	712
German Deaconess's Home and Hospital	462
Hon. James O. Putnam	263
Modern Gastrostomy (McMur- try), Figures 1 and 2	83
Figure 3	84
Figure 4	85
Figures 5, 6	86
Figure 7	88
Mycosis Fungoides (G. W. Wende)	834
Old Amphitheatre, Massachu- setts General Hospital	257
Right Kidney with Cyst (Keyes-Busch), Figure 1	27
Scolex with Hooplets and Brood Capsules, Figure 2 . . .	27
Walter D. Greene, Deputy Health Commissioner	454
Impetigo, Contagious	602
Infants, Drooling of	194
Tuberculosis in	925
Inguino-scrotal Region, Formations in	41
Insanity in Women, Causes of . .	298
Intoxication, Involuntary, from a Medico-legal Standpoint	99
Intraabdominal Disease, Deceptive Similarity of Symptoms of . . .	283
Intranasal Disease, Reflex Effects of	415
Iris, Coloboma of	280
Iron as Food	33
Formation of Blood from	34

Items:

A L. Hummel Advertising Agency	802
Brains Wanted	240
Charles Roome Parmele Co. . . .	642
Climate and Health	240
Conferences Local Boards of Health	133
Course in Bacteriology	041
Dispensary Abuse	946
Emmet Library, Sale of	134
Gross Statue, Unveiling of . . .	801

	PAGE.
Herbert U. Williams's Spring Course	642
Hermann Munk, Du Bois Reymond's Successor	642
Medical Press Bureau	802
Mellin's Food in Infantile Diarrhea	642
Monument to Pasteur	80
New York Lying-in-Hospital, Gift of J. Pierpont Morgan to	641
New York Physicians' Mutual Aid Association Report	802
Pajot, Witticisms of	134
Physicians in Paris and New York	240
Skiagraph, Legal Status of	240
Special Tour to Europe	802
Trustees' Report American Medical Association	131
J ACOBSON, Nathan, History and Semicentennial Anniversary of Anesthesia	266
Johnston, George Ben., Address by	933
Joint Affections, Treatment of Chronic	305

K ERATITIS, Suppurative	55
Keyes-Busch, Multiple Echinococcus Cysts	25
Kidney, Operation for Sacculated	123
Movable	287
Disease, Lactate of Strontium in	597
Koch's Mission to South Africa	613
Krauss, William C., Relation of Noises to Public Health	184
Anatomical Consideration of Brain Syphilis	643

L AMP, Portable Spirit	9
---	---

Leading Articles :

American Public Health Association	57, 222
American Association of Obstetricians and Gynecologists	311
American Medical Association, Jubilee Meeting	926
Anesthesia, Semicentennial Anniversary of	309

	PAGE.
Annual Commencement, Buffalo University Medical College	776
Annual Commencement Niagara University Medical College	864
Buffalo Sanatory Club	609
Dangers of Bicycling	867
Health Department, Its New Appointees	453
Medical Society State of New York	610
National Confederation of State Medical Examining and Licensing Boards	931
Opening of the Colleges	127
Prevention of Disease by Municipal Employment	370
Relation of Drinking Water to Health	531
The Year	451
The Plague	702
Legislation at Albany	671
Library, Buffalo Free Public	374, 459

Literary Notes :

Addendum to Lawson Tait's Paper	945
Albany Medical Annals	722
American Journal of Insanity	946
American Medical Journalist	562
Anales d'Oculistique	480
Anesthesia, a Photogravure of	399
Anomalies and Curiosities of Medicine	482
Antikamnia's Christmas Souvenir	481
Archives of Clinical Skiagraphy	80
Boletim da Sociedade de Medicina e Cirurgia de S Paulo	799
Buffalo General Hospital Annual Report	801
Canadian Journal of Medicine and Surgery	562
Columbia Calendar	482
Columbus Medical Journal	799
Consolidation of Medical Journals	562
Electrical Review	79
Fort Wayne Medical Journal-Magazine	798
Gray's Anatomy	157
Greater Buffalo	946
Illinois State Reformatory, Third Biennial Report	800
Intercollegiate Medical Journal	799
International Medical Annual	638

	PAGE.
Jackson Sanatorium	800
Journal of Nervous and Mental Diseases	399
Journal of Cutaneous and Genito-urinary Disease	639
Laryngoscope	79
Mathews's Medical Quarterly	322
Mellier Drug Company's Brochure	481
Medical History of Tennessee	637
Medical Compend	562
Medical Mirror	481
Medical Press Bureau	157
Medical Record of Mississippi	799
Military Cycling in the Rocky Mountains	798
New York Medical Journal	80
Ophthalmic Record	480
Physician's Blue Book	800
Physician's Vest Pocket Formula Book	640
Report of New York Physicians' Mutual Aid Association	79
Resection of Blood Vessels, End-to-End suture (Murphy)	800
Revista de Ciencias Medicas de Barcelona	800
Scientific American	78
Sheppard Asylum, Fifth Annual Report	798
State Requirements for the Practice of Medicine	638
Students' Hand-Book	79
Wilkinson's Medical Magazine	80
Take Your Home Medical Journal	398
Therapeutic Progress	480
Treat, E. B. & Co	946
Visiting Graduate Nurses	482
Western Medical Review	78
Warner's Pocket Medical Dictionary	639
Year Book of the New York State Reformatory	639
The Laryngoscope	640
Ten-cent Journalism	640
Treatment	799
Year's Work in Operative Gynecology (Humiston)	800
Lithia Tablets	56
Litholapaxy, Points in Technique of	211
Love, Dr. I. N., Resignation of	129
Loveland, B. C., Hysteria	504
Lumbar Puncture for Relief of Intracranial Pressure	215
Lupus Erythematosus	853

	PAGE.
M ANN, Matthew D, Fibroid Operation by	923
Maryland Examining Board	447
Marriage Contract, Should it be Limited by Law?	733
and Social Purity	771
McMurtry, Lewis S., Modern Gastrostomy for Stricture of the Esophagus, with Case	81
Medical Colleges, Standing of	44
Examinations, Division of	46
Schools, Inspector of	444
Science, Practical Aspects of Modern	656
Practice Act, Struggles and Trials of	703
Legislation in the United States	857
Student Examinations in Illinois	862

Medical College, Hospital and Dispensary Notes:

Albany Medical College	384
Bellevue Hospital Medical College	545
Buffalo Fresh Air Mission Hospital	60
Buffalo State Hospital	69
Buffalo City Hospital for Women	70
College of Physicians and Surgeons, Chicago	788
German Deaconess's Home and Hospital	461
German Dispensary	403
Kentucky School of Medicine	144
Marion Sims College of Medicine	144
New York University—Bellevue Hospital Medical College	788, 875
New York Post-Graduate Medical School and Hospital	69, 621
Niagara University Medical College	788
Pennsylvania State Consumption Sanitarium	546
Riverside Hospital, Opening of New	225, 877
Melano-sarcoma of the Female Urethra	344
Melena, Theory to Account for	438
Mental Disease, Prevention and Early Treatment of	168
Mexican Delegates at Buffalo Meeting of American Public Health Association	226

	PAGE.
Microscope, The Physician and His	195
Midwife, Conviction of in Mary-land	458
Milk, Pasteurisation of	121

Miscellany :

Antitoxin Collective Investiga- tion	399
Arlington Chemical Co. Prize Contest	402
Book of Delinquent Debtors .	402
Peroxide of Hydrogen, Mar- chand	402
Rush Monument	400
Caroid	401
Subscribers in Arrears	402
Missouri, Requirements in . . .	443
Möhlau, F. H., Anchylostamum Duodenale, with Report of Cases.	573
Morton, Wm. T. G., in Buffalo .	264
Murphy Button	782
Mycosis Fungoides, with Case .	832

NATURE Study in Schools . . .	780
Nephrorrhaphy, Limits of . . .	288
Nephritis, Pilocarpin in Treatment of	691
New York State Medical Associa- tion, Change of Front of	704
Physicians' Mutual Aid Association	708
Nitroglycerin for Gall-stone . .	221
Noises, Relation of to Public Health	184
Suppression of Unneces- sary	533
Nursing Bottle Ordinance in Buf- falo	614

Obituary :

Barross, F. R.	136
Bartlett, F. W.	710
Brennan, Daniel H.	137
Burchard, Thomas Herring . .	380
Churchill, Alonzo	542
Clarke, Gardner C.	711
Cochran, Jerome	135
Dagenais, Alphonse	708
Erichsen, John Eric	381
Grant, James A. S.	135
Green, Traill	873
Hays, James Mackintosh . . .	872
Hunn, Thomas	65
Lewis, John C.	618
Lusk, William Thompson . . .	935

	PAGE.
McLean, Leroy	783
Millard, Perry H.	617
Murdoch, James Bissett . . .	381
Pancoast, William H.	541
Potter, Samuel	938
Richardson, Benjamin Ward .	380
Samo, James B.	710
Smith, James Greig	937
J. Lewis	936
Walker, Francis Amasa	538
Wells, Sir Spencer	616
Obstetric Practice, Résumé of Fifty Years'	810
Ohio Medical Practice Act . . .	442
Ointments, Decomposition of in Light	53
Ophthalmia Neonatorum, Preven- tion of	426
Opticians, Should They Practise Medicine ?	741
Orchitis, Bismuth Paste in . . .	701
Ovariectomy, Was Robert Houston the First ?	803
Ovary, Mixed Tumors of	287

PALMER, John O., Practical Aspects of Modern Medical Science	656
Pan-American Medical Congress .	233
Parasites in the Vermiform Appen- dix	176
Park, Roswell, History and Intro- duction of Anesthesia in Surgery	241
Pasteur Monument	535
Pediatrics, Past, Present and Pro- spective	435
Pelvic Disease, Cause of	282
Inflammation, Diffused	355
Inflammation, Potent Causes of	284
Peptone, Intestinal Absorption of .	37
Perineal Laceration	356
Peritonitis, Laparotomy and Drain- age in Purulent	509
Periuterine Septic Diseases, Ab- dominal Section vs. Vaginal Route	292, 743

Personal :

Blackwell, Elizabeth ; Abbott, A. C. ; Smith, Chauncey P. ; McCutcheon, Guy L. ; Dig- nen, W. E.	545
Bryant, Percy	562
Coleman, N. R.	938

PAGE.	PAGE.
Didama, H. D.; Peterson, Frederick C.; Hamilton, John B.	Pneumonia, Senile 448
Da Costa, J. C.; Clark, Edw.; Cott, Geo. F.; Clark, Hor- ace; Thornbury, F. J.	Prognosis in 848
Frost, Henry P.	Polyclinic Hospital, Free Room in for Physicians 782
Hamilton, John B.; Pitkin, Jno. T.; Goldberg, J.; Vanden- bergh, Frank P.; Bissell, Wm G.	Poor-houses, Inspection of 612
Hooper, P. O.; Colvin, Dar- win; Fite, C. C.	Porro's Operation 296
Krauss, William C.; Wilson, A. B.	Potter, William Warren, American Public Health Association, A Historical Sketch, His- tory of the Preparation for the Buffalo Meeting, 1896
Lewis, Daniel; Ogden, Charles L.; Schade, L.; Keiser, Max.	Reciprocity in Medical Licen- sure; a Plea for Inter- state Indorsement 883
Lewis, Daniel; Weigel, L. A.; Starr, Elmer; Gibson, Jas. A.; Kane, J. J.	Pregnancy Following Imperfect Coitus 347
Leonhardt, H. C.; Ross, Jas. F. W.; Caul, Martha F.; Patterson, C. J.; Hare, H. A.; Bates, N. L.	Ruptured Tubal 355
Lister, Sir Joseph	Prepuce, Dilatation of 214
Letchworth, Wm. P.; May, Wm. B.; Woodruff, Tim- othy L.	Putnam, Hon. James O., Remarks at Semicentennial Commemora- tion of Anesthesia 261
Mathews, Joseph M.; Lewis, Daniel; Johnston, Geo. Ben; Gihon, Albert L.; Krauss, William C.; Gibbons, Henry Jr.	
McMurtry, L. S.	
Miller, Jacob; Daggett, Byron H.	
Park, Roswell; O'Brien, E. C. W.; Mathews, Joseph M.; Johnson, Ray H.; Lewis, F. Park	
Pryor, John H.; Frederick, C. C.; Dagenais, A.; Himmels- bach, G. A.; Bradley, H. H.; Wile, Charles; Parmenter, John; Waterman, J. H.; Krauss, William C.; Brush, Edward N.; Werder, X. O.	
Ross, James F. W.; Bagley, Thomas	
Walker, Francis A.; Holmes, J. B. S.	
Ward, Milo B.; Osthues, Henry.	
Wise, P. M.	
Pertussis, Treatment of	
Physicians, Fraternal Relations of	
Physicians Should Work Less	
Pleural Effusion in Children	
Pneumatic Cabinet, Forcible Breathing and the	
	Progress in Medical Science :
	Genito-urinary and Syphilitic Diseases, by B. H. Daggett. 38, 211, 348, 439, 595, 690
	Medical Education and State Medical Examinations, by William Warren Potter. 44, 442, 588, 857
	Medicine, Pathology and Ther- apeutics 448, 848
	Neurology, by Wm. C. Krauss. 603
	Obstetrics, Gynecology and Pelvic Surgery, by William Warren Potter 352, 767
	Ophthalmology, by A. A. Hub- bell 50, 358, 763
	Pediatrics, by Maud Josephine Frye 119, 435, 600
	Physiological Chemistry, by John A. Miller 33
	Surgery, by John Parmenter. 121, 303, 684
	Prostate, Castration for Hyper- trophy of 39
	Prostate, Inflammatory Disease of. 491
	Prostatectomy for Prostatic En- largement 598
	Prostitution, Medical. 442
	Protonuclein in Ulcer of the Stom- ach 219
	Pryor, J. H., Forcible Breathing and the Pneumatic Cabinet 178
	Pterygium, Etiology of 50
	Pterygium, New Method of Treat- ing 364

	PAGE.		PAGE.
Public Health and Hygiene :		Bosworth : Diseases of the	
Bubonic Plague at Bombay	781	Nose and Throat	554
Consumption, Deaths from	781	Buck : Vest Pocket Medical	
Exercise, Exact Dosage in	146	Dictionary	477
Health Department, Victory		Buret : Syphilis in Middle	
for	781	Ages and Modern Times	75
Public Health Conferences	615	Butler : <i>Materia Medica, Ther-</i>	
State Board of Health, Month-		apeutics, etc	557
ly Meeting	145	Canfie'd : Urinary Analysis	558
Puerperal Insanity	352	Chapman : Medical Jurispru-	
Eclampsia	353	dence and Toxicology	76
Pupil, Formation of Artificial	358	Corwin : Diagnosis of the	
Putnam, Hon. James O., Remarks		Thorax	634
at Semicentennial Commemora-		Culbreth : <i>Materia Medica and</i>	
tion of Anesthesia	261	Pharmacology	475
Pylephlebitis, Suppurative of	122	Curtis : Voice Building and	
		Tone Placing	73
		Davis : Treatise on Obstetrics	548
		Deaver : Treatise on Appendi-	
		citis	472
R ACHITIS, Elimination of Cal-		Delafield-Prudden : Pathologi-	
cium Compounds in	35	cal Anatomy and Histology	552
Rafter, George W., On Lake Erie		Dennis : System of Surgery,	
as a Water Supply	10	Vol. IV.	147
Railway Accident, the First	159	Dictionary, Lippincott's	943
Railway Surgeons are Exempt	444	Dorland : Manual of Obstet-	
Reciprocity in Medical Licensure	883	rics	550
Reed, Chas. A. L., Melano-sarcoma		Edwards-Harraden : Two	
of the Female Urethra	344	Health Seekers in California	796
Remarks at Semicentennial Com-		Einhorn : Diseases of the Stom-	
memoration of Anesthesia	261	ach	718
Retina, Photography of	364	Ewald : Diseases of the Stom-	
Retinitis, Albuminuric	365	ach	881
Requirements, Preliminary vs. Final		Gage : Microscope and Micro-	
Respiratory Metabolism	35	scopical Methods	793
		Gant : Diseases of the Rectum,	
Reviews :		Anus, etc.	150
Abbott : Principles of Bacterio-		Gould : Students' Medical Dic-	
logy	76	tionary	393
Allingham : Diseases of the		Gould : Borderland Studies	393
Rectum	320	Gould-Pyle : Anomalies and	
Allis : Dislocations of the Hip	152	Curiosities of Medicine	719
Allport : The Eye and its Care	634	Gould : American Year-Book	
Annual Report of Michigan		of Medicine and Surgery	629
State Board of Health	156	Gray : Descriptive and Sur-	
Annual Report Illinois State		gical Anatomy	394
Board of Health	397	Hare : Practical Diagnosis	470
Annual Report of Commis-		Hatfield : Diseases of Chil-	
sioner of Education, 1892-		dren	320
93, 72; 1893-94, 478; 1894-95,	630	Hatfield : Compend of Dis-	
Annual Report State Board of		eases of Children	153
Charities, 1895	632	Hayes : How to Live Longer,	
Annual Report of Pennsyl-		etc.	794
vania State Board of Health		Haynes : Manual of Anatomy	72
1894, 155; 1895	633	Hayden : Venereal Diseases	477
Annual Report State Board of		Hyde : Syphilis and Venereal	
Health, '94, 148; '95	879	Diseases	390
Bartholow : <i>Materia Medica</i>		Hyde : Diseases of the Skin	881
and Therapeutics	555	Hibbard : Diet for the Sick	321
Boisliniere : Obstetric Acci-		Hogan : How to Feed Children.	74
dents, Emergencies, etc	152		

	PAGE.
Holt: Diseases of Infancy and Childhood	720
Howell: American Text-book of Physiology	471
Huntington: Index, Catalogue, Surgeon-General's Office Library	478
International Clinics: Vol. IV., Fifth series, 149; Vol. III., Sixth series, 556; Vol. I., Seventh series	944
International Medical Annual and Practitioner's Index	796
Jackson: Diseases of the Skin	478
Keil's Medical Register-Directory	155
Kirstein: Autopsy of the Larynx and Trachea	792
Loomis-Thompson: System of Practical Medicine	790
Lydston: Over the Hookah	791
McGillicuddy: Disorders of the Nervous System in Women	476
Morris: Diseases of the Genital and Urinary Organs	70
Morris: Lectures on Appendicitis	880
Morris-Oliver: Diseases of the Eye	627
Murrell: Pharmacology and Therapeutics	555
Musser: Medical Diagnosis	476
Park: Treatise on Surgery	385
Presbyterian Hospital Report	75
Pye: Bandaging and Dressing	795
Rensen: Theoretical Chemistry	942
Rockwell: Uses of Electricity	559
Roosevelt: In Sickness and in Health	234
Savage: New Truths in Ophthalmology	236
Schaeffer: Atlas of Obstetrics	631
Simon: Clinical Diagnosis, etc.	553
Saundby: Renal and Urinary Diseases	791
Stedman: Twentieth Century Practice, Vol. VII., 553; Vol. VIII., 318; Vol. IX., 878; Vol. X.	788
Stevens: Practice of Medicine	795
Sternberg: Text-book of Bacteriology	236
Stewart: Diseases of the Male Urethra	715
Storrey: Points for Nurses in Private Practice	237

	PAGE.
Transactions: Medical Society of the State of North Carolina	73
American Surgical Association, Vol. XIII., 74; Vol. XIV.	793
American Microscopical Society	75
American Laryngological Association, '95, 151; '96.	879
American Association of Obstetricians and Gynecologists, Vol. VIII.	151
American Academy of Railway Surgeons	397
American Gynecological Society, Vol. XXI.	635
American Dermatological Association, 1895	154
Colorado State Medical Society	636
Medical Association of Central New York.	156
Medical and Chirurgical Faculty of Maryland	635
Medical Society of Virginia	634
Medical Society State of Pennsylvania	557
Medical Society State of New York, 1896.	153
Philadelphia County Medical Society	155
Rhode Island Medical Society	154
Southern Surgical and Gynecological Association, Vol. VIII.	235
Texas State Medical Association.	631
Treves: A System of Surgery, Vol. II.	468
Turnbull: Artificial Anesthesia	792
Tussey: High Altitude Treatment of Consumptives	794
Tyson: Practice of Medicine	624
Vaughan: Ptomaines, Leucomains, etc.	621
Visiting Lists for 1897: The Medical News, the Medical Record and Lindsay & Blakiston's	395
Weekly Abstract of Sanitary Reports	154
Wells: Compend of Gynecology	153
Wharton: Minor Surgery and Bandaging	551
Wilder: Neural Terms	795

	PAGE.		PAGE.
Wilson : Text-book of Applied Therapeutics	396	American Microscopical Society	231
Wise : Text-book for Nurses	632	American Gastro-Enterological Association	875
Witthaus-Becker : Medical Jurisprudence, Vol. IV.	547	American Medical Publishers Association	786, 942
Wood-Fitz : Practice of Medicine	473	American Medical Editors' Association	787
Year-Book of Treatment for 1897	794	American Institute of Homeopathy	786
Yeo : Food in Health and Disease	474	American Academy of Medicine	787
Rhode Island, Itinerant Physicians not Allowed to Practise in	445	American Medical Association	714, 785
Richmond, Charles H., Antiseptic Treatment of Typhoid Fever	586	American Laryngological, Rhinological and Otological Society	384
Richmond, Nelson G., Acute Epithysitis in Infants	161	Association of American Medical Colleges	787
Rider, Wheelock, Rational Treatment of Asthenopia	580	Association of Erie Railway Surgeons	231
Roe, John O., Breathing and Bicycling	339	Association of Military Surgeons of the U. S.	942
Röntgen Rays in Location of Foreign Bodies in the Eye	359	Buffalo Academy of Medicine. 229, 382, 466, 543, 619, 714, 785, 874	941
Rulison, E. S., Should the Marriage Contract be Limited by Law?	733	Buffalo Sanatory Club	715
S AMO, James B., In Memory of	677	Congress of American Physicians and Surgeons	787
Sanitary Triumph, Buffalo's	62	French Association of Urologists	875
Sanitation, Discussion of in Popular Assemblies	314	Lake Erie Medical Society. 318, 542, 786	786
Satterlee, R. H., Coloboma of the Iris	280	Medical Society State of Pennsylvania	787
Schools, Medical Inspection of	458	Medical Society County of Cattaraugus	874
Sciatica, a Neuritis	410	Medical Society State of Wisconsin	787
Abolition of Reflex in	605	Medical Society County of Westchester	544
Scopolamine in Plastic Iritis	362	Medical Society State of New York	230, 464
Sefton, Frederick, Medical Experts and Expert Testimony	403	Medical Association of Central New York	226, 230, 318
Snow, Cleaning of From Streets	533	Medical Society of the County of New York	383
Irving M., Antitoxin Treatment of Diphtheria in Buffalo	723	Medical Society of the County of Erie	467, 675, 875
Society Meetings :		Medical Society of the County of Chautauqua	468, 542
American Association of Obstetricians and Gynecologists	65, 142, 383, 940	Mississippi Valley Medical Association	142, 231
American Public Health Association	68, 143, 786	Missouri State Medical Association	715, 786
American Dermatological Association	69	National Confederation of State Medical Examining Boards	784
American Academy of Railway Surgeons	138	New York State Association of Railway Surgeons	231
American Electro-Therapeutic Association	143		
American Association for Advancement of Science	144		

	PAGE.
New York Academy of Medicine	620
Ohio State Medical Society	941
Pan-American Medical Congress	233, 383
Southern Surgical and Gynecological Association	317, 381
Tri-State Medical Society	143, 232, 543, 714
Twelfth International Medical Congress	466, 715
Western Ophthalmological, etc. Association	468
Western Surgical and Gynecological Association	384

Society Proceedings:

American Public Health Association	198
American Association of Obstetricians and Gynecologists	281, 743
Medical Society County of Erie	264, 526
Medical Society, County of Chautauqua	32
Medical Association of Central New York	515
Sodium Iodide, from Blood to Lymph	37
Salicylate and Uric Acid	38
Spitting in Street Cars	534, 782
Sprained Ankles	121
Stanton, William, Clinical Report, by	923
State Board of Pharmacy	861
State Medical Societies, What They Have Done	933
Stephenson, F. H., Two Cases of Friedreich's Ataxia	568
Strabismus, Treatment of Convergent	50
Stockton, Charles G., Some Aspects of Enteroptosis	895
Sturtevant, J. R., Fraternal Relation of Physicians	663
Substitution by Unscrupulous Druggists	60
Succus Entericus of Sheep	34
Sun-stroke in 1896	855
Surgery of the War	563
Surgical Cases, Points in After-treatment of	836
Syphilis, Serum Treatment of	38, 440
Treatment of Advanced	439
Syphilo-dermata, Treatment of	690

	PAGE.
TACHYCARDIA, Paroxysmal	848
Tait, Lawson, Cleansing and Cleanliness in Abdominal Operations	483
Was Robert Houston the First Ovariectomy?	803
Thompson, J. G., Surgery of the War, 1861-1865	563
Thyroid Gland, Uses of	437
Sexual Relation of	769
Extract in Chorea	438
Topics of the Month	60, 225, 313, 373, 456, 533, 612, 703
Toxic Substance from Suprarenal Capsules	34
Trional, Unpleasant Effects of	849
Tuberculosis	851
Treatment of Vomiting in	701
Diagnosis of	850
Tuberculous Disease, Abdominal Section for	300
Tuboövarian Cysts	286
Typhoid Fever from Ice Cream	449
Antiseptic Treatment of	586
Serum Diagnosis of	847
Treatment of	854
Ulcer, Surgical Treatment of Perforating	687

ULCER of the Stomach Treated with Protonuclein	219
Ullman, Julius, Clinical Importance of Examination of Feces	89
Urea in Animal Organs	37
Uremic Dyscrasia, Alteration of Nerve Elements in	603
Urethra, Melano-sarcoma of Female	300
Urethral Electrolysis	595
Urinary Sediment, Preservation of	440
Urine, Quick Filtration of	349
Testing of	439
Operation for Incontinence of	770
Uriniferous Tubules, Casts of	1
Uterine Fibroid Operation	923
Uterine Myoma, Case of	511
Displacements, Etiology and Pathology of	607
Uterus, New Method of Dealing with Rupture of	61
Rupture of	295
Cancer of Pregnant	354

	PAGE.		PAGE.
VAGINAL Route vs. Abdominal		WATER Supply, Lake Erie	
Section in Periuterine Sep-		as a	10
tic Diseases	743	Wende, G. W., Mycosis Fungoides,	
Varicocele, Radical Cure of . .	441	with Report of a Case	832
Vessels, Suture of	301	Williams, H. T., Parasites in the	
Virginia, New Members of Medical		Vermiform Appendix,	
Examining Board	448	with Case	176
Vital Statistics, New Blanks for .	375	Laparatomy and Drain-	
Vitreous, Röntgen Rays in Foreign		age in Purulent Peri-	
Bodies in	755	tonitis	509
Vivisection vs. Antivivisection .	366	Woman's Place in Medicine . .	868
in the District of Co-			
lumbia	561	YOUNG, A. A., The Physician	
Voice-Users, Ailments of	920	and His Microscope	195
Vulvar Vegetation	852	Herpes Facialis	651

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P Buffalo medical journal
Med
B
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